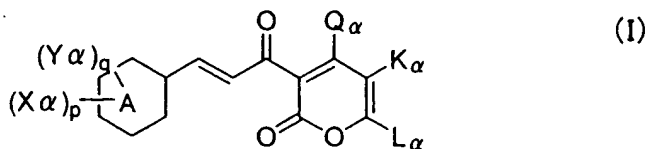


## AMENDMENTS TO THE CLAIMS

1. (Original) A cinnamoyl compound represented by the formula (I):



wherein

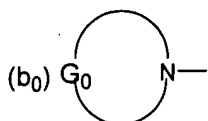
I. A represents a benzene ring or a pyridine ring; and in  $(Y_\alpha)_q$ ,  $Y_\alpha$  is a substituent on a carbon atom and represents a group included in the following  $X_0$  group or  $Y_0$  group,  $q$  represents 0, 1, 2, 3 or 4, and  $Y_\alpha$ s are the same or different when  $q$  is 2 or more and the adjacent two same or different  $Y_\alpha$ s together may form a group included in the  $Z_0$  group to be fused to the A ring when  $q$  is 2 or more; and in  $(X_\alpha)_p$ ,  $X_\alpha$  represents a substituent on a carbon atom which does not belong to the following  $X_0$  group,  $Y_0$  group and  $Z_0$  group,  $p$  represents 1, 2, 3, 4 or 5, and  $X_\alpha$ s may be the same or different when  $p$  is 2 or more; and the sum of  $p$  and  $q$  is 5 or less;

(1) the  $X_0$  group: a  $M_a$ -group, wherein  $M_a$  represents a  $R_b$ - group (wherein  $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a  $R_c$ - $B_a$ - $R_d$ - group (wherein  $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ - group (wherein  $R_d$  is as defined above), a  $R_e$ -CO- $R_d$ - group (wherein  $R_e$  represents a hydrogen atom, or a C1-C10

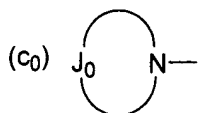
alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e\text{-CO-O-}R_d\text{-}$  group (wherein  $R_e$  and  $R_d$  are as defined above), a  $R_e\text{O-CO-}R_d\text{-}$  group (wherein  $R_e$  and  $R_d$  are as defined above), a  $\text{HO-CO-CH=CH-}$  group, a  $R_eR_e'\text{-N-}R_d\text{-}$  group (wherein  $R_e$  and  $R_e'$  are the same or different,  $R_e$  is as defined above,  $R_e'$  has the same meaning as  $R_e$  has, and  $R_d$  is as defined above), a  $R_e\text{-CO-NR}_e'\text{-}R_d\text{-}$  group (wherein  $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_b\text{O-CO-N}(R_e)\text{-}R_d\text{-}$  group (wherein  $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'\text{-N-CO-}R_d\text{-}$  group (wherein  $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_eR_e'\text{-N-CO-NR}_e''\text{-}R_d\text{-}$  group (wherein  $R_e$ ,  $R_e'$  and  $R_e''$  are the same or different,  $R_e$  and  $R_e'$  are as defined above,  $R_e''$  has the same meaning as  $R_e$  has, and  $R_d$  is as defined above), a  $R_eR_e'\text{-N-C(=NR}_e'')\text{-NR}_e'''\text{-}R_d\text{-}$  group (wherein  $R_e$ ,  $R_e'$ ,  $R_e''$  and  $R_e'''$  are the same or different,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above,  $R_e'''$  has the same meaning as  $R_e$  has, and  $R_d$  is as defined above), a  $R_b\text{-SO}_2\text{-NR}_e\text{-}R_d\text{-}$  group (wherein  $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'\text{-N-SO}_2\text{-}R_d\text{-}$  group (wherein  $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group;

(2) the  $Y_0$  group: a  $M_{b0}\text{-}R_d\text{-}$  group, wherein  $M_{b0}$  represents a  $M_{c0}\text{-}$  group

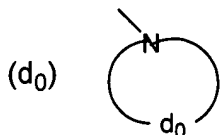
[wherein  $M_{c0}$  represents a  $M_{d0}\text{-}R_d'\text{-}$  group [wherein  $M_{d0}$  represents a 6 to 10-membered aryl group optionally substituted with a  $M_a\text{-}$  group (wherein  $M_a$  is as defined above), a 5 to 10-membered heteroaryl group optionally substituted with a  $M_a\text{-}$  group (wherein  $M_a$  is as defined above), a 3 to 10-membered cyclic hydrocarbon or heterocyclic group optionally substituted with a  $M_a\text{-}$  group (wherein  $M_a$  is as defined above) and optionally containing an unsaturated bond, a  $(b_0)\text{-}$  group



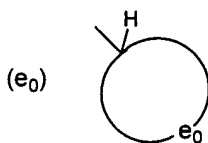
(in the (b<sub>0</sub>)- group, G<sub>0</sub> forms an optionally substituted, saturated or unsaturated, nonaromatic 5 to 14-membered cyclic hydrocarbon or heterocyclic ring), a (c<sub>0</sub>)- group



(in the (C<sub>0</sub>)- group, J<sub>0</sub> forms a 5 to 7-membered aromatic ring optionally containing a nitrogen atom), a (d<sub>0</sub>)- group



[wherein d<sub>0</sub> forms a 5 to 12-membered hydrocarbon ring which is substituted with a carbonyl group or a thiocarbonyl group and further which may be optionally substituted with an oxy group, a thio group, a -NR<sub>1</sub>- group {wherein R<sub>1</sub> represents a hydrogen atom, a C1-C10 alkyl group, a C2-C10 alkyl group substituted with a halogen atom or a R<sub>2</sub>-B<sub>1</sub>- group (wherein R<sub>2</sub> represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and B<sub>1</sub> represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), a C3-C10 alkenyl group, or a C3-C10 alkynyl group}, a sulfinyl group or a sulfonyl group] or a (e<sub>0</sub>)- group



{wherein e<sub>0</sub> forms a 5 to 12-membered hydrocarbon ring optionally substituted with a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a -NR<sub>1</sub>- group (wherein R<sub>1</sub> is as defined above), a sulfinyl group or

a sulfonyl group}; and  $R_d'$  is the same as or different from  $R_d$  and has the same meaning as  $R_d$  has]],  
 a  $M_{c0}$ - $B_a$ - group (wherein  $M_{c0}$  and  $B_a$  are as defined above), a  $M_{c0}$ -CO- group (wherein  $M_{c0}$  is as defined above), a  $M_{c0}$ -CO-O- group (wherein  $M_{c0}$  is as defined above), a  $M_{c0}O$ -CO- group (wherein  $M_{c0}$  is as defined above), a  $M_{c0}R_eN$ - group (wherein  $M_{c0}$  and  $R_e$  are as defined above), a  $M_{c0}$ -CO- $NR_e$ - group (wherein  $M_{c0}$  and  $R_e$  are as defined above), a  $M_{c0}O$ -CO- $NR_e$ - group (wherein  $M_{c0}$  and  $R_e$  are as defined above), a  $M_{c0}R_eN$ -CO- group (wherein  $M_{c0}$  and  $R_e$  are as defined above), a  $M_{c0}R_eN$ -CO- $NR_e'$ - group (wherein  $M_{c0}$ ,  $R_e$  and  $R_e'$  are as defined above), a  $M_{c0}R_eN$ -C(=NR $_e'$ )- $NR_e''$ - group (wherein  $M_{c0}$ ,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above), a  $M_{c0}$ -SO $_2$ - $NR_e$ - group (wherein  $M_{c0}$  and  $R_e$  are as defined above) or a  $M_{c0}R_eN$ -SO $_2$ - group (wherein  $M_{c0}$  and  $R_e$  are as defined above), and  
 $R_d$  is as defined above;

(3) the  $Z_0$  group: a 5 to 12-membered cyclic hydrocarbon or heterocyclic ring optionally substituted with a halogen atom, a C1-C10 alkoxy group, a C3-C10 alkenyloxy group, a C3-C10 alkynyloxy group, a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a sulfinyl group or a sulfonyl group, which is an aromatic or nonaromatic and monocyclic or fused ring and which is fused to the A ring;

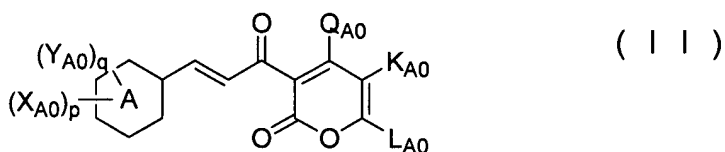
II.  $Q_\alpha$  represents an optionally substituted hydroxy group, or an optionally substituted amino group;

III.  $K_\alpha$  and  $L_\alpha$  are the same or different, and represent a hydrogen atom, or a substituent on a carbon atom, or  $K_\alpha$  and  $L_\alpha$  may form a C1-C10 alkylene group optionally having a substituent or a C1-C10 alkenylene group optionally having a substituent; and

the term "as defined above" used for the same symbols among plural substituents means that the plural

substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

**2. (Original)** A cinnamoyl compound represented by the formula (II):



wherein

I. A represents a benzene ring or a pyridine ring;

II. in  $(X_{A0})_p$ ,  $X_{A0}$  is a substituent on a carbon atom and represents a group included in any group of the following  $A_0$  to  $N_0$  groups,  $p$  represents 1, 2, 3, 4 or 5, and when  $p$  is 2 or more,  $X_{A0}$ s are the same or different;

(1) the  $A_0$  group:

a  $D_1$ - $R_4$ - group [ wherein  $D_1$  represents a  $(R_1-(O)_k- )A_1N-(O)_k-$  group [wherein  $R_1$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a  $R_2$ - $B_1$ -group (wherein  $R_2$  represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and  $B_1$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group,  $k$  represents 0 or 1,  $A_1$  represents a  $R_3-(CHR_0)_m-(B_2-B_3)_m-$  group {wherein  $R_3$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a  $R_2$ - $B_1$ - group

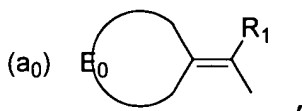
(wherein  $R_2$  and  $B_1$  are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group,  $R_0$  represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group,  $m$  represents 0 or 1,  $B_2$  represents a single bond, an oxy group, a thio group or a  $-N((O)_nR_1')$ - group (wherein  $R_1'$  is the same as or different from  $R_1$ , and has the same meaning as  $R_1$  has, and  $n$  represents 0 or 1),  $B_3$  represents a carbonyl group, a thiocarbonyl group or a sulfonyl group,  $m'$  represents 0 or 1, and when  $B_3$  is a sulfonyl group, it does not occur that  $m$  is 0 and  $R_3$  is a hydrogen atom at the same time}, and  $k'$  represents 0 or 1], and  $R_4$  represents a C1-C10 alkylene group, provided that a  $R_0'R_0''N-R_4$ - group (wherein  $R_0'$  and  $R_0''$  are the same as or different from  $R_0$  and have the same meaning as  $R_0$  has, and  $R_4$  is as defined above) is excluded],

a  $D_2-R_4$ - group[ wherein  $D_2$  represents a cyano group, a  $R_1R_1'NC(=N-(O)_n-A_1)$ - group (wherein  $R_1$ ,  $R_1'$ ,  $n$  and  $A_1$  are as defined above), an  $A_1N=C(-OR_2)$ - group (wherein  $A_1$  and  $R_2$  are as defined above) or a  $NH_2-CS$ - group, and  $R_4$  is as defined above],

a  $D_3-R_4$ - group[ wherein  $D_3$  represents a nitro group or a  $R_1OSO_2$ - group (wherein  $R_1$  is as defined above), and  $R_4$  is as defined above], or

a  $R_1OSO_2$ - group[ wherein  $R_1$  is as defined above];

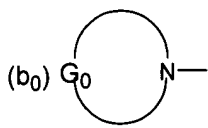
(2) the  $B_0$  group: an  $(a_0)$ - group



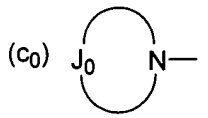
in the  $(a_0)$ - group,  $E_0$  forms an optionally substituted, saturated or unsaturated, aromatic or nonaromatic 5 to 14-membered cyclic hydrocarbon or heterocyclic ring, and  $R_1$  is as defined above;

(3) the  $C_0$  group: a C2-C10 alkenyl group substituted with a halogen atom, a  $R_2-B_1-$  group (wherein  $R_2$  and  $B_1$  are as defined above), a  $D_4-R_4-$  group [wherein  $D_4$  represents a hydroxy group or an  $A_1-O-$  group (wherein  $A_1$  is as defined above), and  $R_4$  is as defined above], a  $D_5-$  group [wherein  $D_5$  represents a  $O=C(R_3)-$  group (wherein  $R_3$  is as defined above), an  $A_1-(O)_n-N=C(R_3)-$  group (wherein  $A_1$ ,  $n$  and  $R_3$  are as defined above), a  $R_1-B_0-CO-R_4-(O)_n-N=C(R_3)-$  group {wherein  $R_1$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above, and  $B_0$  represents an oxy group, a thio group or a  $-N((O)_mR_1')$  group (wherein  $R_1'$  and  $m$  are as defined above)}, a  $D_2-R_4-(O)_n-N=C(R_3)-$  group (wherein  $D_2$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above) or a  $R_1A_1N-N=C(R_3)-$  group (wherein  $R_1$ ,  $A_1$  and  $R_3$  are as defined above)], a  $R_1A_1N-O-R_4-$  group (wherein  $R_1$ ,  $A_1$  and  $R_4$  are as defined above), a  $R_1(A_1-(O)_n-)N-$  group (wherein  $R_1$ ,  $A_1$  and  $n$  are as defined above), a  $D_2-$  group (wherein  $D_2$  is as defined above) or a  $D_3-$  group (wherein  $D_3$  is as defined above);

(4) the  $D_0$  group: a C2-C10 alkynyl group substituted with a  $(b_0)-R_4-$  group (in  $(b_0)$ )



$G_0$  forms an optionally substituted, saturated or unsaturated, nonaromatic 5 to 14-membered cyclic hydrocarbon or heterocyclic ring), a  $(c_0)-R_4-$  group (in  $(c_0)$ )



$J_0$  forms an aromatic 5 to 7-membered ring optionally containing a nitrogen atom and  $R_4$  is as defined above), a halogen atom, a  $R_2-B_1-R_4-$  group (wherein  $R_2$ ,  $B_1$  and  $R_4$  are as defined above), a  $D_4-R_4-$  group (wherein  $D_4$  and  $R_4$  are as

defined above), a  $D_5$ - group (wherein  $D_5$  is as defined above), a  $D_1$ - $R_4$ - group (wherein  $D_1$  and  $R_4$  are as defined above), a  $D_2$ - group (wherein  $D_2$  is as defined above) or a  $D_3$ - $R_4$ - group (wherein  $D_3$  and  $R_4$  are as defined above);

(5) the  $E_0$  group: an  $A_2$ -CO- $R_5$ - group, provided that  $R_5$  is not a vinylene group when  $A_2$  is a hydroxy group, wherein  $A_2$  represents

(i) an  $A_3$ - $B_4$ - group

wherein  $A_3$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a  $R_{a0}$ -( $R_4$ )<sub>m</sub>- group (wherein  $R_{a0}$  represents an optionally substituted 5 to 7-membered aryl group or heteroaryl group, and  $R_4$  and  $m$  are as defined above), or a C1-C10 alkyl group substituted with a ( $b_0$ )- $R_4$ - group (wherein ( $b_0$ ) and  $R_4$  are as defined above), a ( $c_0$ )- $R_4$ - group (wherein ( $c_0$ ) and  $R_4$  are as defined above), a  $R_2$ - $B_1$ - $R_4$ - group (wherein  $R_2$ ,  $B_1$  and  $R_4$  are as defined above), a  $D_4$ - $R_4$ - group (wherein  $D_4$  and  $R_4$  are as defined above), a  $D_5$ - group (wherein  $D_5$  is as defined above), a  $D_1$ - $R_4$ - group (wherein  $D_1$  and  $R_4$  are as defined above), a  $D_2$ - group (wherein  $D_2$  is as defined above), a  $D_3$ - $R_4$ - group (wherein  $D_3$  and  $R_4$  are as defined above) or an  $A_4$ -SO<sub>2</sub>- $R_4$ - group (wherein  $A_4$  represents a ( $b_0$ )- group (wherein ( $b_0$ ) is as defined above), a ( $c_0$ )- group (wherein ( $c_0$ ) is as defined above) or a  $R_1R_1'$ N- group (wherein  $R_1$  and  $R_1'$  are as defined above), and  $R_4$  is as defined above), and

$B_4$  represents an oxy group, a thio group or a -N((O)<sub>m</sub> $R_1$ )- group (wherein  $R_1$  and  $m$  are as defined above), provided that  $A_3$  is not a hydrogen atom when  $B_4$  is a thio group;



(ii) a  $R_1-B_4-CO-R_4-B_4'$ - group, wherein  $R_1$ ,  $B_4$  and  $R_4$  are as defined above,  $B_4'$  is the same as or different from  $B_4$  and has the same meaning as  $B_4$  has, provided that  $R_2$  is not a hydrogen atom when  $B_4$  is a thio group, or

a  $D_2-R_4-B_4$ - group, wherein  $D_2$ ,  $R_4$  and  $B_4$  are as defined above;

(iii) a  $R_2-SO_2-NR_1$ - group, wherein  $R_2$  is as defined above, provided that a hydrogen atom is excluded, and  $R_1$  is as defined above;

(iv) a  $(b_0)$ - group, wherein  $(b_0)$  is as defined above;

(v) a  $(c_0)$ - group, wherein  $(c_0)$  is as defined above; or

(vi) a  $R_1A_1N-NR_1'$ - group, wherein  $R_1$ ,  $A_1$  and  $R_1'$  are as defined above; and

$R_5$  represents a C2-C10 alkenylene group optionally substituted with a halogen atom or a C2-C10 alkynylene group;

(6) the  $F_0$  group: an  $A_5-B_5-R_6$ - group

wherein  $A_5$  represents a C2-C10 alkyl group substituted with a  $D_4$ - group (wherein  $D_4$  is as defined above), a  $D_1$ - group (wherein  $D_1$  is as defined above), a  $D_3$ - group (wherein  $D_3$  is as defined above) or an  $A_4-SO_2$ - group (wherein  $A_4$  is as defined above), or a C1-C10 alkyl group substituted with a  $R_2-B_1$ - group (wherein  $R_2$  and  $B_1$  are as defined above), a  $D_2$ - group (wherein  $D_2$  is as defined above), a  $D_5$ - group (wherein  $D_5$  is as defined above) or an  $A_2-CO$ - group (wherein  $A_2$  is as defined above),

$B_5$  represents a  $B_1$ - group (wherein  $B_1$  is as defined above) or a  $-NA_1$ - group (wherein  $A_1$  is as defined above), and

$R_6$  represents a single bond or a C1-C10 alkylene group;

(7) the  $G_0$  group: an  $A_6-B_5-R_6$ - group

wherein  $A_6$  represents an  $(a_0)$ - $R_4$ - group (wherein  $(a_0)$  and  $R_4$  are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group, or a C2-C10 alkenyl group substituted with a halogen atom, a  $R_2$ - $B_1$ - group (wherein  $R_2$  and  $B_1$  are as defined above), a  $D_5$ - group (wherein  $D_5$  is as defined above), a  $D_2$ - group (wherein  $D_2$  is as defined above) or an  $A_2$ -CO- group (wherein  $A_2$  is as defined above) , or a C2-C10 alkynyl group substituted with a halogen atom, a  $R_2$ - $B_1$ - group (wherein  $R_2$  and  $B_1$  are as defined above), a  $D_5$ - group (wherein  $D_5$  is as defined above),  $D_2$ - group (wherein  $D_2$  is as defined above) or an  $A_2$ -CO- group (wherein  $A_2$  is as defined above), or a C3-C10 alkenyl group substituted with a  $(b_0)$ - group (wherein  $(b_0)$  is as defined above), a  $(c_0)$ - group (wherein  $(c_0)$  is as defined above), a  $D_4$ - group (wherein  $D_4$  is as defined above), a  $D_1$ - group (wherein  $D_1$  is as defined above) or a  $D_3$ - group (wherein  $D_3$  is as defined above), or a C3-C10 alkynyl group substituted with a  $D_4$ - group (wherein  $D_4$  is as defined above), a  $D_1$ - group (wherein  $D_1$  is as defined above) or a  $D_3$ - group (wherein  $D_3$  is as defined above), and

$B_5$  and  $R_6$  are as defined above;

(8) the  $H_0$  group:

a  $D_2$ -N $(-O)_n$ - $A_1$ - $R_6$ - group (wherein  $D_2$ ,  $n$ ,  $A_1$  and  $R_6$  are as defined above),

a  $D_2$ - group (wherein  $D_2$  is as defined above, provided that a cyano group is excluded),

a  $R_1(R_1'(O)_n)N$ - $CR_1''=N$ - $R_6$ - group (wherein  $R_1$ ,  $R_1'$ ,  $n$  and  $R_6$  are as defined above,  $R_1''$  is the same as or different from  $R_1$  and has the same meaning as that of  $R_1$ ),

a  $R_1$ -(O) $_n$ -N= $CR_1'$ - $NR_2$ - $R_6$ - group (wherein  $R_1$ ,  $n$ ,  $R_1'$ ,  $R_2$  and  $R_6$  are as defined above),

a  $R_2-B_3-NR_1-CO-NR_1'-R_6-$  group (wherein  $R_2$ ,  $B_3$ ,  $R_1$ ,  $R_1'$  and  $R_6$  are as defined above),

a  $D_2-CO-NR_1-R_6-$  group (wherein  $D_2$ ,  $R_1$  and  $R_6$  are as defined above) or

an  $A_2-COCO-NR_1-R_6-$  group (wherein  $A_2$ ,  $R_1$  and  $R_6$  are as defined above);

(9) the  $I_0$  group:

an  $A_7-B_6-N((O)_nR_1)-R_6-$  group [wherein  $A_7$  represents a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C2-C10 alkynyl group, or a C3-C10 haloalkynyl group, or a  $R_2-B_1-R_4-$  group (wherein  $R_2$ ,  $B_1$  and  $R_4$  are as defined above), or a  $D_4-R_4-$  group (wherein  $D_4$  and  $R_4$  are as defined above), or a  $D_5-R_4-$  group (wherein  $D_5$  and  $R_4$  are as defined above), or a  $D_1-R_4-$  group (wherein  $D_1$  and  $R_4$  are as defined above), or a  $(b_0)-R_4-$  group (wherein  $(b_0)$  and  $R_4$  are as defined above), or a  $(c_0)-R_4-$  group (wherein  $(c_0)$  and  $R_4$  are as defined above), or a  $D_2-R_4-$  group (wherein  $D_2$  and  $R_4$  are as defined above), or a  $D_3-R_4-$  group (wherein  $D_3$  and  $R_4$  are as defined above), or an  $A_4-SO_2-R_4-$  group (wherein  $A_4$  and  $R_4$  are as defined above), or an  $A_2-CO-R_4-$  group (wherein  $A_2$  and  $R_4$  are as defined above),  $B_6$  represents a carbonyl group or a thiocarbonyl group, and  $n$ ,  $R_1$  and  $R_6$  are as defined above],

an  $A_8-CS-N((O)_nR_1)-R_6-$  group [wherein  $A_8$  represents a hydrogen atom or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $n$ ,  $R_1$  and  $R_4$  are as defined above],

an  $A_7'-B_2'-B_3-N((O)_nR_1)-R_6-$  group [wherein  $A_7'$  represents a C3-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a  $R_2-B_1-R_4'-$  group (wherein  $R_2$  and  $B_1$  are as defined above, and  $R_4'$  represents

a C2-C10 alkylene group), or a D<sub>4</sub>-R<sub>4</sub>'- group (wherein D<sub>4</sub> and R<sub>4</sub>' are as defined above), or a D<sub>1</sub>-R<sub>4</sub>'- group (wherein D<sub>1</sub> and R<sub>4</sub>' are as defined above), or a (b<sub>0</sub>)-R<sub>4</sub>'- group (wherein (b<sub>0</sub>) and R<sub>4</sub>' are as defined above), or a (c<sub>0</sub>)-R<sub>4</sub>'- group (wherein (c<sub>0</sub>) and R<sub>4</sub>' are as defined above), or a D<sub>2</sub>-R<sub>4</sub>- group (wherein D<sub>2</sub> and R<sub>4</sub> are as defined above), or a D<sub>3</sub>-R<sub>4</sub>'- group (wherein D<sub>3</sub> and R<sub>4</sub>' are as defined above), or an A<sub>2</sub>-CO-R<sub>4</sub>- group (wherein A<sub>2</sub> and R<sub>4</sub> are as defined above), B<sub>2</sub>' represents an oxy group, a thio group or a -N((O)<sub>n</sub>R<sub>1</sub>')- group (wherein n' is the same as or different from n and has the same meaning as that of n, and R<sub>1</sub>' is as defined above), and B<sub>3</sub>, n, R<sub>1</sub> and R<sub>6</sub> are as defined above],

an A<sub>8</sub>'-B<sub>2</sub>'-CS-N((O)<sub>n</sub>R<sub>1</sub>)-R<sub>6</sub>- group [wherein A<sub>8</sub>' represents a C1-C10 alkyl group or a C2-C10 haloalkyl group, B<sub>2</sub>' is as defined above, and n, R<sub>1</sub> and R<sub>6</sub> are as defined above],

an A<sub>8</sub>'-S-B<sub>3</sub>'-N((O)<sub>n</sub>R<sub>1</sub>)-R<sub>6</sub>- group [wherein A<sub>8</sub>', n, R<sub>1</sub> and R<sub>6</sub> are as defined above, and B<sub>3</sub>' represents a carbonyl group or a sulfonyl group] or

an A<sub>7</sub>''-SO<sub>2</sub>-N((O)<sub>n</sub>R<sub>1</sub>)-R<sub>6</sub>- group [wherein A<sub>7</sub>'' represents a C2-C10 alkenyl group, or a C3-C10 alkenyl group substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>'- group (wherein R<sub>2</sub>, B<sub>1</sub> and R<sub>4</sub>' are as defined above), or a D<sub>4</sub>-R<sub>4</sub>'- group (wherein D<sub>4</sub> and R<sub>4</sub>' are as defined above), or a D<sub>5</sub>-R<sub>4</sub>- group (wherein D<sub>5</sub> and R<sub>4</sub> are as defined above), or a D<sub>1</sub>-R<sub>4</sub>'- group (wherein D<sub>1</sub> and R<sub>4</sub>' are as defined above), or a (b<sub>0</sub>)-R<sub>4</sub>'- group (wherein (b<sub>0</sub>) and R<sub>4</sub>' are as defined above), or a (c<sub>0</sub>)-R<sub>4</sub>'- group (wherein (c<sub>0</sub>) and R<sub>4</sub>' are as defined above), or a D<sub>2</sub>-R<sub>4</sub>- group (wherein D<sub>2</sub> and R<sub>4</sub> are as defined above), or a NO<sub>2</sub>-R<sub>4</sub>- group (wherein R<sub>4</sub> is as defined above), or an

$A_2$ -CO- $R_4$ - group (wherein  $A_2$  and  $R_4$  are as defined above), and  $n$ ,  $R_1$  and  $R_6$  are as defined above];

(10) the  $J_0$  group:

an  $A_7$ -CO- group (wherein  $A_7$  is as defined above),

an  $A_9$ -CS- group (wherein  $A_9$  represents  $A_7$  or  $A_8$ ),

an  $A_9'$  (O)<sub>m</sub>N=C( $A_9$ )- group (wherein  $A_9'$  represents  $A_7'$  or  $A_8'$ , and  $m$  and  $A_9$  are as defined above),

a  $D_2$ -CO- group (wherein  $D_2$  is as defined above),

an  $A_2$ -COCO- group (wherein  $A_2$  is as defined above),

an  $A_9$ -CO- $B_1'$ - $R_6$ - group (wherein  $A_9$  and  $R_6$  are as defined above, and  $B_1'$  represents an oxy group or a thio group, provided that  $A_9$  is not  $A_8$  when  $B_1'$  is an oxy group),

an  $A_9$ -CS- $B_1'$ - $R_6$ - group (wherein  $A_9$ ,  $B_1'$  and  $R_6$  are as defined above),

an  $A_7''$ -SO<sub>2</sub>- $B_1'$ - $R_6$ - group (wherein  $A_7''$ ,  $B_1'$  and  $R_6$  are as defined above),

an  $A_8$ -SO<sub>2</sub>- $B_1'$ - $R_6$ - group (wherein  $A_8$ ,  $B_1'$  and  $R_6$  are as defined above, provided that  $A_8$  is not a hydrogen atom),

an  $A_9'$ - $B_2'$ - $B_3$ - $B_1'$ - $R_6$ - group (wherein  $A_9'$ ,  $B_2'$ ,  $B_3$ ,  $B_1'$  and  $R_6$  are as defined above), or

a C<sub>2</sub>-C<sub>10</sub> alkenyl group substituted with a ( $b_0$ )- group (wherein ( $b_0$ ) is as defined above) or a ( $c_0$ )- group (wherein ( $c_0$ ) is as defined above);

(11) the  $K_0$  group: an  $A_{10}$ -N((O)<sub>n</sub> $R_1$ )-CO- $R_6$ - group

wherein  $A_{10}$  represents a hydrogen atom (provided that  $n$  is not 0), an  $A_7''$ -SO<sub>2</sub>- group (wherein  $A_7''$  is as defined above), an  $A_8$ -SO<sub>2</sub>- group (wherein  $A_8$  is as defined above, provided that  $A_8$  is not a hydrogen atom), an  $A_9'$ O- group (wherein  $A_9'$  is as defined above, provided that  $n$  is not 1), an  $A_9'$ - group (wherein  $A_9'$  is as defined above, provided that  $A_8'$  is excluded when  $n$  is 0), a  $R_2$ OCH<sub>2</sub>- group (wherein  $R_2$  is as defined above), an  $A_2$ -CO- $R_4$ - group (wherein  $A_2$  and

$R_4$  are as defined above) or an  $A_2\text{-CO-CH(CH}_2\text{CO-A}_2\text{)-}$  group (wherein  $A_2$  is as defined above), and  $n$ ,  $R_1$  and  $R_6$  are as defined above;

(12) the  $L_0$  group:

an  $A_{10}'\text{-N}((\text{O})_nR_1)\text{-SO}_2\text{-R}_6\text{-}$  group [wherein  $A_{10}'$  represents a hydrogen atom (provided that  $n$  is not 0), an  $A_9'\text{-O-}$  group (wherein  $A_9'$  is as defined above, provided that  $n$  is not 1), an  $A_9'\text{-}$  group (wherein  $A_9'$  is as defined above, provided that  $A_8'$  is excluded when  $n$  is 0), a  $R_2\text{-CO-}$  group (wherein  $R_2$  is as defined above), an  $A_2\text{-CO-R}_4\text{-}$  group (wherein  $A_2$  and  $R_4$  are as defined above) or an  $A_2\text{-CO-CH(CH}_2\text{CO-A}_2\text{)-}$  group (wherein  $A_2$  is as defined above), and  $n$ ,  $R_1$  and  $R_6$  are as defined above],

an  $A_9''R_1\text{-N-SO}_2\text{-N}((\text{O})_nR_1')\text{-R}_6\text{-}$  group [wherein  $A_9''$  represents a hydrogen atom or an  $A_9'\text{-}$  group (wherein  $A_9'$  is as defined above), and  $R_1$ ,  $n$ ,  $R_1'$  and  $R_6$  are as defined above] or

a  $(b_0)\text{-SO}_2\text{-N}((\text{O})_nR_1')\text{-R}_6\text{-}$  group [wherein  $(b_0)$ ,  $n$ ,  $R_1'$  and  $R_6$  are as defined above];

(13) the  $M_0$  group:

a  $R_1(R_2S)\text{C=N-R}_6\text{-}$  group (wherein  $R_1$ ,  $R_2$  and  $R_6$  are as defined above),

a  $R_2B(R_2'B')\text{C=N-R}_6\text{-}$  group (wherein  $R_2$  and  $R_6$  are as defined above,  $R_2'$  is the same as or different from  $R_2$  and has the same meaning as that of  $R_2$ , and  $B$  and  $B'$  are the same or different and represent an oxy group or a thio group),

a  $R_1R_1'\text{N-(R}_2S)\text{C=N-R}_6\text{-}$  group (wherein  $R_1$ ,  $R_1'$ ,  $R_2$  and  $R_6$  are as defined above),

a  $R_1\text{N=C(SR}_2\text{)-NR}_2'\text{-R}_6\text{-}$  group (wherein  $R_1$ ,  $R_2$ ,  $R_2'$  and  $R_6$  are as defined above) or

a  $R_1(R_1'O)N-R_6-$  group (wherein  $R_1$ ,  $R_1'$  and  $R_6$  are as defined above);

(14) the  $N_0$  group: a  $A_{11}-P(=O)(OR_1')-R_4-$  group

wherein  $A_{11}$  represents a  $R_1-$  group (wherein  $R_1$  is as defined above), a  $R_1O-R_6-$  group (wherein  $R_1$  and  $R_6$  are as defined above) or a  $R_1OCO-CHR_0-$  group (wherein  $R_1$  and  $R_0$  are as defined above), and  $R_1'$  and  $R_4$  are as defined above;

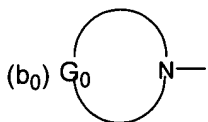
III. in  $(Y_{A0})_q$ ,  $Y_{A0}$  is a substituent on a carbon atom and represents a group included in the following  $X_0$  group and  $Y_0$  group,  $q$  represents 0, 1, 2, 3 or 4, the sum of  $p$  (wherein  $p$  is as defined above) and  $q$  is 5 or less,  $Y_{A0}$ s are the same as or different when  $q$  is 2 or more, and the adjacent two same or different  $Y_{A0}$ s may form a group included in the  $Z_0$  group to be fused to the A ring when  $q$  is 2 or more;

(1) the  $X_0$  group: a  $M_a-$  group, wherein  $M_a$  represents a  $R_b-$  group (wherein  $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a  $R_c-B_a-R_d-$  group (wherein  $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d-$  group (wherein  $R_d$  is as defined above), a  $R_e-CO-R_d-$  group (wherein  $R_e$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e-CO-O-R_d-$  group (wherein  $R_e$  and  $R_d$  are as defined above), a  $R_eO-CO-R_d-$  group (wherein  $R_e$  and  $R_d$  are as defined above), a  $HO-CO-CH=CH-$  group, a  $R_eR_e'N-R_d-$  group (wherein  $R_e$  and  $R_e'$  are the same or different,  $R_e$  is as defined above,  $R_e'$  has the same meaning as  $R_e$  has, and  $R_d$  is as defined above), a  $R_e-CO-NR_e'-R_d-$  group (wherein  $R_e$ ,  $R_e'$

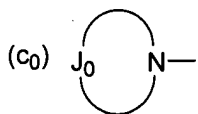
and  $R_d$  are as defined above), a  $R_bO-CO-N(R_e)-R_d-$  group (wherein  $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'N-CO-R_d-$  group (wherein  $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_eR_e'N-CO-NR_e''-R_d-$  group (wherein  $R_e$ ,  $R_e'$  and  $R_e''$  are the same or different,  $R_e$  and  $R_e'$  are as defined above,  $R_e''$  has the same meaning as  $R_e$  has, and  $R_d$  is as defined above), a  $R_eR_e'N-C(=NR_e'')-NR_e'''-R_d-$  group (wherein  $R_e$ ,  $R_e'$ ,  $R_e''$  and  $R_e'''$  are the same or different,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above,  $R_e'''$  has the same meaning as  $R_e$  has, and  $R_d$  is as defined above), a  $R_b-SO_2-NR_e-R_d-$  group (wherein  $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'N-SO_2-R_d-$  group (wherein  $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group;

(2) the  $Y_0$  group: a  $M_{b0}-R_d-$  group, wherein  $M_{b0}$  represents a  $M_{c0}-$  group

[wherein  $M_{c0}$  represents a  $M_{d0}-R_d'-$  group [wherein  $M_{d0}$  represents a 6 to 10-membered aryl group optionally substituted with a  $M_a-$  group (wherein  $M_a$  is as defined above), a 5 to 10-membered heteroaryl group optionally substituted with a  $M_a-$  group (wherein  $M_a$  is as defined above), a 3 to 10-membered cyclic hydrocarbon or heterocyclic group which is optionally substituted with a  $M_a-$  group (wherein  $M_a$  is as defined above) and which optionally contains an unsaturated bond, or a  $(b_0)-$  group

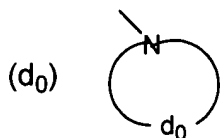


(wherein  $(b_0)$  forms as defined above), a  $(c_0)-$  group

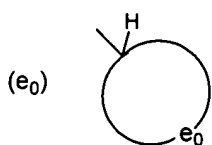


(wherein  $(c_0)$  forms as defined above), a  $(d_0)-$ group





{wherein d<sub>0</sub> forms a 5 to 12-membered hydrocarbon ring which is substituted with a carbonyl group or a thiocarbonyl group and further which may be optionally substituted with an oxy group, a thio group, a -NR<sub>1</sub>- group (wherein R<sub>1</sub> is as defined above), a sulfinyl group or a sulfonyl group} or a (e<sub>0</sub>)- group



{wherein e<sub>0</sub> forms a 5 to 12-membered hydrocarbon ring optionally substituted with a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a -NR<sub>1</sub>- group (wherein R<sub>1</sub> is as defined above), a sulfinyl group or a sulfonyl group}, and R<sub>d</sub>' is the same as or different from R<sub>d</sub> and has the same meaning as R<sub>d</sub> has]],

a M<sub>c0</sub>-B<sub>a</sub>- group (wherein M<sub>c0</sub> and B<sub>a</sub> are as defined above), a M<sub>c0</sub>-CO- group (wherein M<sub>c0</sub> is as defined above), a M<sub>c0</sub>-CO-O- group (wherein M<sub>c0</sub> is as defined above), a M<sub>c0</sub>O-CO- group (wherein M<sub>c0</sub> is as defined above), a M<sub>c0</sub>R<sub>e</sub>N- group (wherein M<sub>c0</sub> and R<sub>e</sub> are as defined above), a M<sub>c0</sub>-CO-NR<sub>e</sub>- group (wherein M<sub>c0</sub> and R<sub>e</sub> are as defined above), a M<sub>c0</sub>O-CO-NR<sub>e</sub>- group (wherein M<sub>c0</sub> and R<sub>e</sub> are as defined above), a M<sub>c0</sub>R<sub>e</sub>N-CO- group (wherein M<sub>c0</sub> and R<sub>e</sub> are as defined above), a M<sub>c0</sub>R<sub>e</sub>N-CO-NR<sub>e</sub>'- group (wherein M<sub>c0</sub>, R<sub>e</sub> and R<sub>e</sub>' are as defined above), a M<sub>c0</sub>R<sub>e</sub>N-C(=NR<sub>e</sub>')-NR<sub>e</sub>''- group (wherein M<sub>c0</sub>, R<sub>e</sub>, R<sub>e</sub>' and R<sub>e</sub>'' are as defined above), a M<sub>c0</sub>-SO<sub>2</sub>-NR<sub>e</sub>- group (wherein M<sub>c0</sub> and R<sub>e</sub> are as defined above) or a M<sub>c0</sub>R<sub>e</sub>N-SO<sub>2</sub>- group (wherein M<sub>c0</sub> and R<sub>e</sub> are as defined above), and R<sub>d</sub> is as defined above;

(3) the  $Z_0$  group: a 5 to 12-membered cyclic hydrocarbon or heterocyclic ring optionally substituted with a halogen atom, a C1-C10 alkoxy group, a C3-C10 alkenyloxy group, a C3-C10 alkynyloxy group, a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a sulfinyl group or a sulfonyl group, which is an aromatic or nonaromatic and monocyclic or fused ring and which is fused to the A ring;

IV.  $Q_{A0}$  represents a hydroxyl group, a  $(b_0)-$  group (wherein  $(b_0)$  is as defined above), an  $A_9-B_6-B_c-$  group [wherein  $A_9$  and  $B_6$  are as defined above, and  $B_c$  represent an oxy group or a  $-N((O)_mR_1)-$  group (wherein  $m$  and  $R_1$  are as defined above), provided that  $B_c$  is not a sulfonyl group when  $A_9$  is a hydrogen atom], an  $A_7''-SO_2-B_c-$  group (wherein  $A_7''$  and  $B_c$  are as defined above), an  $A_8-SO_2-B_c-$  group (wherein  $A_8$  and  $B_c$  are as defined above, provided that  $A_8$  is not a hydrogen atom), a  $R_1R_1'N-SO_2-B_c-$  group (wherein  $R_1$ ,  $R_1'$  and  $B_c$  are as defined above), a  $(b_0)-SO_2-B_c-$  group (wherein  $(b_0)$  and  $B_c$  are as defined above), an  $A_9'-B_c-$  group (wherein  $A_9'$  and  $B_c$  are as defined above), a  $D_5-R_4-B_c-$  group (wherein  $D_5$ ,  $R_4$  and  $B_c$  are as defined above), a  $M_{c0}-B_3-B_c-$  group (wherein  $M_{c0}$ ,  $B_3$  and  $B_c$  are as defined above) or a  $M_{c0}-B_c-$  group (wherein  $M_{c0}$  and  $B_c$  are as defined above);

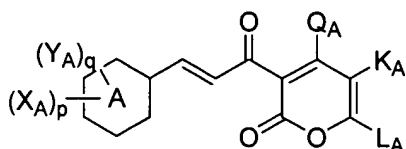
V.  $K_{A0}$  represents a hydrogen atom, a halogen atom, or a C10 alkyl group,  $L_{A0}$  represents a hydrogen atom, or a  $M_{b0}$ -group ( $M_{b0}$  is as defined above), or  $K_{A0}$  and  $L_{A0}$  may form a C1-C10 alkylene group, or a C1-C10 alkenylene group optionally substituted with single or the same or different plural  $M_a$  groups; and

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents,

although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

**3. (Original)** A cinnamoyl compound represented by the formula (III):

( III )



wherein

I. A represents a benzene ring or a pyridine ring;

II. in  $(X_A)_p$ ,  $X_A$  is a substituent on a carbon atom and represents a group included in any group or the following A to N groups, p represents 1, 2, 3, 4 or 5, and,  $X_A$ s are the same or different when p is 2 or more,

(1) the A group:

a  $D_1-R_4$ - group, wherein  $D_1$  represents a  $(R_1-(O)_k-(A_1N-(O)_{k'})$ - group [wherein  $R_1$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a  $R_2-B_1$ - group (wherein  $R_2$  represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and  $B_1$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group, k represents 0 or 1,  $A_1$  represents a  $R_3-(CHR_0)_m-(B_2-B_3)_m$ - group (wherein  $R_3$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a  $R_2-B_1$ -group

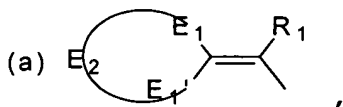
(wherein  $R_2$  and  $B_1$  are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group,  $R_0$  represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group,  $m$  represents 0 or 1,  $B_2$  represents a single bond, an oxy group, a thio group or a  $-N((O)_nR_1')$ - group (wherein  $R_1'$  is the same as or different from  $R_1$  and has the same meaning as  $R_1$  has, and  $n$  represents 0 or 1),  $B_3$  represents a carbonyl group, a thiocarbonyl group or a sulfonyl group,  $m'$  represents 0 or 1, and when  $B_3$  is a sulfonyl group, it does not occur that  $m$  is 0 and  $R_3$  is a hydrogen atom at the same time}, and  $k'$  represents 0 or 1], and  $R_4$  represents a C1-C10 alkylene group, provided that a  $R_0'R_0''N-R_4$ -group (wherein  $R_0'$  and  $R_0''$  are the same as or different from  $R_0$  and has the same meaning as  $R_0$  has, and  $R_4$  is as defined above) is excluded,

a  $D_2-R_4$ - group, wherein  $D_2$  represents a cyano group, a  $R_1R_1'NC(=N-(O)_n-A_1)$ -group (wherein  $R_1$ ,  $R_1'$ ,  $n$  and  $A_1$  are as defined above), an  $A_1N=C(-OR_2)$ -group (wherein  $A_1$  and  $R_2$  are as defined above) or a  $NH_2-CS$ -group, and  $R_4$  is as defined above,

a  $D_3-R_4$ - group, wherein  $D_3$  represents a nitro group or a  $R_1OSO_2$ - group (wherein  $R_1$  is as defined above), and  $R_4$  is as defined above, or

a  $R_1OSO_2$ - group, wherein  $R_1$  is as defined above;

(2) the B group: an (a)-group

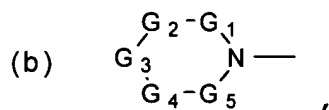


in (a),  $E_1$  and  $E_1'$  represent a methylene group optionally substituted with a C1-C10 alkyl group or a C1-C10 alkoxy group, or a carbonyl group, provided that  $E_1$  and  $E_1'$  are not a carbonyl group at the same time,  $E_2$  represents a C2-C10

alkylene group optionally substituted with an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1'$ -group (wherein  $R_1'$  is as defined above), or a C3-C10 alkenylene group optionally substituted with an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1'$ -group (wherein  $R_1'$  is as defined above), and  $R_1$  is as defined above;

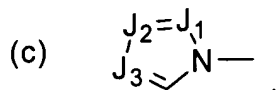
(3) the C group: a C2-C10 alkenyl group substituted with a halogen atom, a  $R_2-B_1$ - group (wherein  $R_2$  and  $B_1$  are as defined above), a  $D_4-R_4$ - group [wherein  $D_4$  represents a hydroxyl group or an  $A_1-O$ - group (wherein  $A_1$  is as defined above), and  $R_4$  is as defined above], a  $D_5$ - group [wherein  $D_5$  represents an  $O=C(R_3)$ - group (wherein  $R_3$  is as defined above), an  $A_1-(O)_n-N=C(R_3)$ - group (wherein  $A_1$ ,  $n$  and  $R_3$  are as defined above), a  $R_1-B_0-CO-R_4-(O)_n-N=C(R_3)$ - group (wherein  $R_1$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above, and  $B_0$  represents an oxy group, a thio group or a  $-N((O)_mR_1')$ - group (wherein  $R_1'$  and  $m$  are as defined above)), a  $D_2-R_4-(O)_n-N=C(R_3)$ - group (wherein  $D_2$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above) or a  $R_1A_1N-N=C(R_3)$ - group (wherein  $R_1$ ,  $A_1$  and  $R_3$  are as defined above)], a  $R_1A_1N-O-R_4$ - group (wherein  $R_1$ ,  $A_1$  and  $R_4$  are as defined above), a  $R_1(A_1-(O)_n)N$ - group (wherein  $R_1$ ,  $A_1$  and  $n$  are as defined above), a  $D_2$ - group (wherein  $D_2$  is as defined above) or a  $D_3$ - group (wherein  $D_3$  is as defined above);

(4) the D group: a C2-C10 alkynyl group substituted with a (b)- $R_4$ - group [wherein, in (b)



$G_1$ ,  $G_2$ ,  $G_4$  and  $G_5$  represent a methylene group which is connected with the adjacent atom via a single bond and which may be optionally substituted with a methyl group, or

a methine group which is connected with the adjacent atom via a double bond and which may be optionally substituted with a methyl group, and G<sub>3</sub> represents a single bond, a double bond, a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a -NR<sub>1</sub>- group (wherein R<sub>1</sub> is as defined above), or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a -NR<sub>1</sub>- group (wherein R<sub>1</sub> is as defined above); and R<sub>4</sub> is as defined above], a (c)-R<sub>4</sub>- group (wherein, in (c)



J<sub>1</sub>, J<sub>2</sub> and J<sub>3</sub> are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom; and R<sub>4</sub> is as defined above), a halogen atom, a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>- group (wherein R<sub>2</sub>, B<sub>1</sub> and R<sub>4</sub> are as defined above), a D<sub>4</sub>-R<sub>4</sub>- group (wherein D<sub>4</sub> and R<sub>4</sub> are as defined above), a D<sub>5</sub>- group (wherein D<sub>5</sub> is as defined above), a D<sub>1</sub>-R<sub>4</sub>- group (wherein D<sub>1</sub> and R<sub>4</sub> are as defined above), a D<sub>2</sub>-group (wherein D<sub>2</sub> is as defined above) or a D<sub>3</sub>-R<sub>4</sub>- group (wherein D<sub>3</sub> and R<sub>4</sub> are as defined above);

(5) the E group: an A<sub>2</sub>-CO-R<sub>5</sub>- group, provided that R<sub>5</sub> is not a vinylene group when A<sub>2</sub> is a hydroxyl group, wherein A<sub>2</sub> represents

(i) an A<sub>3</sub>-B<sub>4</sub>- group

wherein A<sub>3</sub> represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or R<sub>a</sub>-(R<sub>4</sub>)<sub>m</sub>- group (wherein R<sub>a</sub> represents a phenyl group, a pyridyl group, a furyl group or a thienyl

group, which may be optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and  $R_4$  and  $m$  are as defined above), or a C1-C10 alkyl group substituted with a (b)- $R_4$ - group (wherein (b) and  $R_4$  are as defined above), a (c)- $R_4$ - group (wherein (c) and  $R_4$  are as defined above), a  $R_2$ - $B_1$ - $R_4$ - group (wherein  $R_2$ ,  $B_1$  and  $R_4$  are as defined above), a  $D_4$ - $R_4$ - group (wherein  $D_4$  and  $R_4$  are as defined above), a  $D_5$ - group (wherein  $D_5$  is as defined above), a  $D_1$ - $R_4$ - group (wherein  $D_1$  and  $R_4$  are as defined above), a  $D_2$ - group (wherein  $D_2$  is as defined above), a  $D_3$ - $R_4$ - group (wherein  $D_3$  and  $R_4$  are as defined above) or an  $A_4$ - $SO_2$ - $R_4$ - group { wherein  $A_4$  represents a (b)- group (wherein (b) is as defined above), a (c)- group (wherein (c) is as defined above) or a  $R_1R_1'$ N- group (wherein  $R_1$  and  $R_1'$  are as defined above), and  $R_4$  is as defined above}, and

$B_4$  represents an oxy group, a thio group or a -  
 $N((O)_mR_1)$ - group (wherein  $R_1$  and  $m$  are as defined above),  
 provided that  $A_3$  is not a hydrogen atom when  $B_4$  is a thio group,

(ii) a  $R_1$ - $B_4$ -CO- $R_4$ - $B_4'$ - group

wherein  $R_1$ ,  $B_4$  and  $R_4$  are as defined above,  $B_4'$  is the same as or different from  $B_4$  and has the same meaning as  $B_4$  has, provided that  $R_2$  is not a hydrogen atom when  $B_4$  is a thio group, or

a  $D_2$ - $R_4$ - $B_4$ -group, wherein  $D_2$ ,  $R_4$  and  $B_4$  are as defined above,

(iii) a  $R_2$ - $SO_2$ - $NR_1$ - group

wherein  $R_2$  is as defined above, provided that a hydrogen atom is excluded; and  $R_1$  is as defined above,

(iv) a (b)- group, wherein (b) is as defined above,

(v) a (c)- group, wherein (c) is as defined above, or

(vi) a  $R_1A_1N-NR_1'$ - group, wherein  $R_1$ ,  $A_1$  and  $R_1'$  are as defined above, and

$R_5$  represents a C2-C10 alkenylene group optionally substituted with a halogen atom, or a C2-C10 alkynylene group;

(6) the F group: an  $A_5-B_5-R_6$ - group

wherein  $A_5$  represents a C2-C10 alkyl group substituted with a  $D_4$ - group (wherein  $D_4$  is as defined above), a  $D_1$ - group (wherein  $D_1$  is as defined above), a  $D_3$ - group (wherein  $D_3$  is as defined above) or an  $A_4-SO_2$ - group (wherein  $A_4$  is as defined above), or a C1-C10 alkyl group substituted with a  $R_2-B_1$ - group (wherein  $R_2$  and  $B_1$  are as defined above), a  $D_2$ - group (wherein  $D_2$  is as defined above), a  $D_5$ - group (wherein  $D_5$  is as defined above) or an  $A_2-CO$ - group (wherein  $A_2$  is as defined above),  $B_5$  represents a  $B_1$ - group (wherein  $B_1$  is as defined above) or a  $-NA_1$ - group (wherein  $A_1$  is as defined above), and  $R_6$  represents a single bond or a C1-C10 alkylene group;

(7) the G group: an  $A_6-B_5-R_6$ - group

wherein  $A_6$  represents an (a)- $R_4$ - group (wherein (a) and  $R_4$  are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group, or a C2-C10 alkenyl group substituted with a halogen atom, a  $R_2-B_1$ - group (wherein  $R_2$  and  $B_1$  are as defined above), a  $D_5$ - group (wherein  $D_5$  is as defined above), a  $D_2$ - group (wherein  $D_2$  is as defined above) or an  $A_2-CO$ - group (wherein  $A_2$  is as define above), or a C2-C10 alkynyl group substituted with a halogen atom, a  $R_2-B_1$ - group (wherein  $R_2$  and  $B_1$  are as defined above), a  $D_5$ - group (wherein  $D_5$  is as defined above), a  $D_2$ - group (wherein  $D_2$  is as defined above) or an  $A_2-CO$ - group (wherein  $A_2$  is as defined above), or a C3-C10 alkenyl group substituted with a (b)- group (wherein (b) is as defined above), a (c)-



group (wherein (c) is as defined above), a D<sub>4</sub>- group (wherein D<sub>4</sub> is as defined above), a D<sub>1</sub>- group (wherein D<sub>1</sub> is as defined above) or a D<sub>3</sub>- group (wherein D<sub>3</sub> is as defined above), or a C3-C10 alkynyl group substituted with a D<sub>4</sub>- group (wherein D<sub>4</sub> is as defined above), a D<sub>1</sub>- group (wherein D<sub>1</sub> is as defined above) or a D<sub>3</sub>- group (wherein D<sub>3</sub> is as defined above), and B<sub>5</sub> and R<sub>6</sub> are as defined above;

(8) the H group:

a D<sub>2</sub>-N(-(O)<sub>n</sub>-A<sub>1</sub>)-R<sub>6</sub>- group (wherein D<sub>2</sub>, n, A<sub>1</sub> and R<sub>6</sub> are as defined above),

a D<sub>2</sub>- group (wherein D<sub>2</sub> is as defined above, provided that a cyano group is excluded),

a R<sub>1</sub> (R<sub>1</sub>' (O)<sub>n</sub>)N-CR<sub>1</sub>"=N-R<sub>6</sub>- group (wherein R<sub>1</sub>, R<sub>1</sub>', n and R<sub>6</sub> are as defined above, R<sub>1</sub>" is the same as or different from R<sub>1</sub> and has the same meaning as R<sub>1</sub> has),

a R<sub>1</sub>-(O)<sub>n</sub>-N=CR<sub>1</sub>'-NR<sub>2</sub>-R<sub>6</sub>- group (wherein R<sub>1</sub>, n, R<sub>1</sub>', R<sub>2</sub> and R<sub>6</sub> are as defined above),

a R<sub>2</sub>-B<sub>3</sub>-NR<sub>1</sub>-CO-NR<sub>1</sub>'-R<sub>6</sub>- group (wherein R<sub>2</sub>, B<sub>3</sub>, R<sub>1</sub>, R<sub>1</sub>' and R<sub>6</sub> are as defined above),

a D<sub>2</sub>-CO-NR<sub>1</sub>-R<sub>6</sub>- group (wherein D<sub>2</sub>, R<sub>1</sub> and R<sub>6</sub> are as defined above) or

an A<sub>2</sub>-COCO-NR<sub>1</sub>-R<sub>6</sub>- group (wherein A<sub>2</sub>, R<sub>1</sub> and R<sub>6</sub> are as defined above);

(9) the I group:

an A<sub>7</sub>-B<sub>6</sub>-N((O)<sub>n</sub>R<sub>1</sub>)-R<sub>6</sub>- group [wherein A<sub>7</sub> represents a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C2-C10 alkynyl group, or a C3-C10 haloalkynyl group, or a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>- group (wherein R<sub>2</sub>, B<sub>1</sub> and R<sub>4</sub> are as defined above), or a D<sub>4</sub>-R<sub>4</sub>- group (wherein D<sub>4</sub> and R<sub>4</sub> are as defined above), or a D<sub>5</sub>-R<sub>4</sub>- group (wherein D<sub>5</sub> and R<sub>4</sub> are as defined above), or a D<sub>1</sub>-R<sub>4</sub>- group (wherein D<sub>1</sub> and R<sub>4</sub> are as defined above), or a (b)-R<sub>4</sub>- group (wherein (b) and R<sub>4</sub> are

as defined above), or a (c)-R<sub>4</sub>- group (wherein (c) and R<sub>4</sub> are as defined above), or a D<sub>2</sub>-R<sub>4</sub>- group (wherein D<sub>2</sub> and R<sub>4</sub> are as defined above), or a D<sub>3</sub>-R<sub>4</sub>- group (wherein D<sub>3</sub> and R<sub>4</sub> are as defined above), or an A<sub>4</sub>-SO<sub>2</sub>-R<sub>4</sub>- group (wherein A<sub>4</sub> and R<sub>4</sub> are as defined above), or an A<sub>2</sub>-CO-R<sub>4</sub>- group (wherein A<sub>2</sub> and R<sub>4</sub> are as defined above), B<sub>6</sub> represents a carbonyl group or a thiocarbonyl group, and n, R<sub>1</sub> and R<sub>6</sub> are as defined above],

an A<sub>8</sub>-CS-N((O)<sub>n</sub>R<sub>1</sub>)-R<sub>6</sub>- group [wherein A<sub>8</sub> represents a hydrogen atom or a C1-C10 alkyl group optionally substituted with a halogen atom, and n, R<sub>1</sub> and R<sub>6</sub> are as defined above],

an A<sub>7</sub>'-B<sub>2</sub>'-B<sub>3</sub>-N((O)<sub>n</sub>R<sub>1</sub>)-R<sub>6</sub>- group [wherein A<sub>7</sub>' represents a C3-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>'- group (wherein R<sub>2</sub> and B<sub>1</sub> are as defined above, and R<sub>4</sub>' represents a C2-C10 alkylene group), or a D<sub>4</sub>-R<sub>4</sub>'- group (wherein D<sub>4</sub> and R<sub>4</sub>' are as defined above), or a D<sub>1</sub>-R<sub>4</sub>'- group (wherein D<sub>1</sub> and R<sub>4</sub>' are as defined above), or a (b)-R<sub>4</sub>'- group (wherein (b) and R<sub>4</sub>' are as defined above), or a (c)-R<sub>4</sub>'- group (wherein (c) and R<sub>4</sub>' are as defined above), or a D<sub>2</sub>-R<sub>4</sub>- group (wherein D<sub>2</sub> and R<sub>4</sub> are as defined above), or a D<sub>3</sub>-R<sub>4</sub>'- group (wherein D<sub>3</sub> and R<sub>4</sub>' are as defined above), or an A<sub>2</sub>-CO-R<sub>4</sub>- group (wherein A<sub>2</sub> and R<sub>4</sub> are as defined above), B<sub>2</sub>' represents an oxy group, a thio group or a -N((O)<sub>n'</sub>R<sub>1</sub>')- group (wherein n' is the same as or different from n and has the same meaning as n has, and R<sub>1</sub>' is as defined above), and B<sub>3</sub>, n, R<sub>1</sub> and R<sub>6</sub> are as defined above],

an A<sub>8</sub>'-B<sub>2</sub>'-CS-N((O)<sub>n</sub>R<sub>1</sub>)-R<sub>4</sub>- group [wherein A<sub>8</sub>' represents a C1-C10 alkyl group or a C2-C10 haloalkyl group,

B<sub>2</sub>' is as defined above, and n, R<sub>1</sub> and R<sub>6</sub> are as defined above],

an A<sub>8</sub>'-S-B<sub>3</sub>'-N((O)<sub>n</sub>R<sub>1</sub>)-R<sub>6</sub>- group [wherein A<sub>8</sub>', n, R<sub>1</sub> and R<sub>6</sub> are as defined above, and B<sub>3</sub>' represents a carbonyl group or a sulfonyl group] or

an A<sub>7</sub>"-SO<sub>2</sub>-N((O)<sub>n</sub>R<sub>1</sub>)-R<sub>6</sub>- group [wherein A<sub>7</sub>" represents a C<sub>2</sub>-C<sub>10</sub> alkenyl group, or a C<sub>3</sub>-C<sub>10</sub> alkenyl group substituted with a halogen atom, or a C<sub>3</sub>-C<sub>10</sub> alkynyl group optionally substituted with a halogen atom, or a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>'- group (wherein R<sub>2</sub>, B<sub>1</sub> and R<sub>4</sub>' are as defined above), or a D<sub>4</sub>-R<sub>4</sub>'- group (wherein D<sub>4</sub> and R<sub>4</sub>' are as defined above), or a D<sub>5</sub>-R<sub>4</sub>- group (wherein D<sub>5</sub> and R<sub>4</sub> are as defined above), or a D<sub>1</sub>-R<sub>4</sub>'- group (wherein D<sub>1</sub> and R<sub>4</sub>' are as defined above), or a (b)-R<sub>4</sub>'- group (wherein (b) and R<sub>4</sub>' are as defined above), or a (c)-R<sub>4</sub>'- group (wherein (c) and R<sub>4</sub>' are as defined above), or a D<sub>2</sub>-R<sub>4</sub>- group (wherein D<sub>2</sub> and R<sub>4</sub> are as defined above), or a NO<sub>2</sub>-R<sub>4</sub>- group (wherein R<sub>4</sub> is as defined above), or an A<sub>2</sub>-CO-R<sub>4</sub>- group (wherein A<sub>2</sub> and R<sub>4</sub> are as defined above), and n, R<sub>1</sub> and R<sub>4</sub> are as defined above];

(10) the J group:

an A<sub>7</sub>-CO- group (wherein A<sub>7</sub> is as defined above),

an A<sub>9</sub>-CS- group (wherein A<sub>9</sub> represents A<sub>7</sub> or A<sub>8</sub>),

an A<sub>9</sub>'(O)<sub>m</sub>N=C(A<sub>9</sub>)- group (wherein A<sub>9</sub>' represents A<sub>7</sub>' or A<sub>8</sub>', and m and A<sub>9</sub> are as defined above),

a D<sub>2</sub>-CO- group (wherein D<sub>2</sub> is as defined above),

an A<sub>2</sub>-COCO- group (wherein A<sub>2</sub> is as defined above),

an A<sub>9</sub>-CO-B<sub>1</sub>'-R<sub>6</sub>- group (wherein A<sub>9</sub> and R<sub>6</sub> are as defined above, and B<sub>1</sub>' represents an oxy group or a thio group, provided that A<sub>9</sub> is not A<sub>8</sub> when B<sub>1</sub>' is an oxy group),

an A<sub>9</sub>-CS-B<sub>1</sub>'-R<sub>6</sub>- group (wherein A<sub>9</sub>, B<sub>1</sub>' and R<sub>6</sub> are as defined above),

an  $A_7''$ -SO<sub>2</sub>-B<sub>1</sub>'-R<sub>6</sub>- group (wherein  $A_7''$ , B<sub>1</sub>' and R<sub>6</sub> are as defined above),

an A<sub>8</sub>-SO<sub>2</sub>-B<sub>1</sub>'-R<sub>6</sub>- group (wherein A<sub>8</sub>, B<sub>1</sub>' and R<sub>6</sub> are as defined above, provided that A<sub>8</sub> is not a hydrogen atom),

an A<sub>9</sub>'-B<sub>2</sub>'-B<sub>3</sub>-B<sub>1</sub>'-R<sub>6</sub>- group (wherein A<sub>9</sub>', B<sub>2</sub>', B<sub>3</sub>, B<sub>1</sub>' and R<sub>6</sub> are as defined above), or

a C<sub>2</sub>-C<sub>10</sub> alkenyl group substituted with a (b)- group (wherein (b) is as defined above) or a (c)- group (wherein (c) is as defined above);

(11) the K group: an A<sub>10</sub>-N((O)<sub>n</sub>R<sub>1</sub>)-CO-R<sub>6</sub>- group

wherein A<sub>10</sub> represents a hydrogen atom (provided that n is not 0), an  $A_7''$ -SO<sub>2</sub>- group (wherein  $A_7''$  is as defined above), an A<sub>8</sub>-SO<sub>2</sub>- group (wherein A<sub>8</sub> is as defined above, provided that A<sub>8</sub> is not a hydrogen atom), an A<sub>9</sub>'O- group (wherein A<sub>9</sub>' is as defined above, provided that n is not 1), an A<sub>9</sub>'- group (wherein A<sub>9</sub>' is as defined above, provided that A<sub>8</sub>' is excluded when n is 0), a R<sub>2</sub>OCH<sub>2</sub>- group (wherein R<sub>2</sub> is as defined above), an A<sub>2</sub>-CO-R<sub>4</sub>- group (wherein A<sub>2</sub> and R<sub>4</sub> are as defined above) or an A<sub>2</sub>-CO-CH(CH<sub>2</sub>CO-A<sub>2</sub>)- group (wherein A<sub>2</sub> is as defined above), and n, R<sub>1</sub> and R<sub>6</sub> are as defined above;

(12) the L group:

an A<sub>10</sub>'-N((O)<sub>n</sub>R<sub>1</sub>)-SO<sub>2</sub>-R<sub>6</sub>- group [wherein A<sub>10</sub>' represents a hydrogen atom (provided that n is not 0), an A<sub>9</sub>'O- group (wherein A<sub>9</sub>' is as defined above, provided that n is not 1), an A<sub>9</sub>'- group (wherein A<sub>9</sub>' is as defined above, provided that A<sub>8</sub>' is excluded when n is 0), a R<sub>2</sub>-CO- group (wherein R<sub>2</sub> is as defined above), an A<sub>2</sub>-CO-R<sub>4</sub>- group (wherein A<sub>2</sub> and R<sub>4</sub> are as defined above) or an A<sub>2</sub>-CO-CH(CH<sub>2</sub>CO-A<sub>2</sub>)- group (wherein A<sub>2</sub> is as defined above), and n, R<sub>1</sub> and R<sub>6</sub> are as defined above],

an  $A_9''R_1N-SO_2-N((O)_nR_1')-R_6-$  group [wherein  $A_9''$  represents a hydrogen atom or an  $A_9'$ - group (wherein  $A_9'$  is as defined above), and  $R_1$ ,  $n$ ,  $R_1'$  and  $R_6$  are as defined above] or

a  $(b)-SO_2-N((O)_nR_1')-R_6-$  group [wherein  $(b)$ ,  $n$ ,  $R_1'$  and  $R_6$  are as defined above];

(13) the M group:

a  $R_1(R_2S)C=N-R_6-$  group (wherein  $R_1$ ,  $R_2$  and  $R_6$  are as defined above),

a  $R_2B(R_2'B')C=N-R_6-$  group (wherein  $R_2$  and  $R_6$  are as defined above,  $R_2'$  is the same as or different from  $R_2$  and has the same meaning as  $R_2$  has, and  $B$  and  $B'$  are the same or different and represent an oxy group or a thio group),

a  $R_1R_1'N-(R_2S)C=N-R_6-$  group (wherein  $R_1$ ,  $R_1'$ ,  $R_2$  and  $R_6$  are as defined above),

a  $R_1N=C(SR_2)-NR_2'-R_6-$  group (wherein  $R_1$ ,  $R_2$ ,  $R_2'$  and  $R_6$  are as defined above) or

a  $R_1(R_1'O)N-R_6-$  group (wherein  $R_1$ ,  $R_1'$  and  $R_6$  are as defined above);

(14) the N group: an  $A_{11}-P(=O)(OR_1')-R_4-$  group

wherein  $A_{11}$  represents a  $R_1-$  group (wherein  $R_1$  is as defined above), a  $R_1O-R_6-$  group (wherein  $R_1$  and  $R_6$  are as defined above) or a  $R_1OCO-CHR_0-$  group (wherein  $R_1$  and  $R_0$  are as defined above), and  $R_1'$  and  $R_4$  are as defined above;

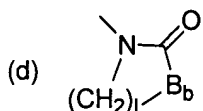
III. in  $(Y_A)_q$ ,  $Y_A$  is a substituent on a carbon atom and represents a group included in the following X group or Y group,  $q$  represents 0, 1, 2, 3 or 4, the sum of  $p$  (wherein  $p$  is as defined above) and  $q$  is 5 or less,  $Y_{As}$  are the same or different when  $q$  is 2 or more, and the adjacent two same or different  $Y_{As}$  together may form a group included in the Z group to be fused to the A ring when  $q$  is 2 or more,

(1) the X group: a  $M_a$ - group

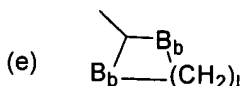
wherein  $M_a$  represents a  $R_b$ - group (wherein  $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a  $R_c$ - $B_a$ - $R_d$ - group (wherein  $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ - group (wherein  $R_d$  is as defined above), a  $R_e$ -CO- $R_d$ - group (wherein  $R_e$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e$ -CO-O- $R_d$ - group (wherein  $R_e$  and  $R_d$  are as defined above), a  $R_eO$ -CO- $R_d$ - group (wherein  $R_e$  and  $R_d$  are as defined above), a HO-CO-CH=CH- group, a  $R_eR_e'N$ - $R_d$ - group (wherein  $R_e$  and  $R_e'$  are the same or different,  $R_e$  is as defined above,  $R_e'$  has the same meaning as  $R_e$  has, and  $R_d$  is as defined above), a  $R_e$ -CO-N $R_e'$ - $R_d$ - group (wherein  $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_bO$ -CO-N( $R_e$ )- $R_d$ - group (wherein  $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'N$ -CO- $R_d$ - group (wherein  $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_eR_e'N$ -CO-N $R_e''$ - $R_d$ - group (wherein  $R_e$ ,  $R_e'$  and  $R_e''$  are the same or different,  $R_e$  and  $R_e'$  are as defined above,  $R_e''$  has the same meaning as  $R_e$  has, and  $R_d$  is as defined above), a  $R_eR_e'N$ -C(=N $R_e''$ )-N $R_e'''$ - $R_d$ - group (wherein  $R_e$ ,  $R_e'$ ,  $R_e''$  and  $R_e'''$  are the same or different,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above,  $R_e'''$  has the same meaning as  $R_e$  has, and  $R_d$  is as defined above), a  $R_b$ -SO<sub>2</sub>-N $R_e$ - $R_d$ - group (wherein  $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'N$ -SO<sub>2</sub>- $R_d$ - group (wherein  $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group;

(2) the Y group: a  $M_b$ - $R_d$ -group, wherein  $M_b$  represents a  $M_c$ -group

[wherein  $M_c$  represents a  $M_d-R_d'$ - group [wherein  $M_d$  represents a phenyl group optionally substituted with a  $M_a$ - group (wherein  $M_a$  is as defined above), a pyridyl group optionally substituted with a  $M_a$ - group (wherein  $M_a$  is as defined above), a naphthyl group optionally substituted with a  $M_a$ - group (wherein  $M_a$  is as defined above), a (b)- group (wherein (b) is as defined above), a (c)- group (wherein (c) is as defined above), a (d)- group



(wherein  $l$  is 2, 3 or 4,  $B_b$  represents an oxy group or a thio group) or an (e)- group



(wherein  $l$  and  $B_b$  are as defined above), and  $R_d'$  is the same as or different from  $R_d$  and has the same meaning as  $R_d$  has]], a  $M_c-B_a$ - group (wherein  $M_c$  and  $B_a$  are as defined above), a  $M_c-CO$ - group (wherein  $M_c$  is as defined above), a  $M_c-CO-O$ - group (wherein  $M_c$  is as defined above), a  $M_cO-CO$ - group (wherein  $M_c$  is as defined above), a  $M_cR_eN$ - group (wherein  $M_c$  and  $R_e$  are as defined above), a  $M_c-CO-NR_e$ - group (wherein  $M_c$  and  $R_e$  are as defined above), a  $M_cO-CO-NR_e$ - group (wherein  $M_c$  and  $R_e$  are as defined above), a  $M_cR_eN-CO$ - group (wherein  $M_c$  and  $R_e$  are as defined above), a  $M_cR_eN-CO-NR_e'$ - group (wherein  $M_c$ ,  $R_e$  and  $R_e'$  are as defined above), a  $M_cR_eN-C(=NR_e')-NR_e''$ - group (wherein  $M_c$ ,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above), a  $M_c-SO_2-NR_e$ - group (wherein  $M_c$  and  $R_e$  are as defined above) or a  $M_cR_eN-SO_2$ - group (wherein  $M_c$  and  $R_e$  are as defined above), and

$R_d$  is as defined above;

(3) the Z group:

a  $-N=C(Y_a)-Y_a'$ - group (wherein  $Y_a$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and  $Y_a'$  represents an oxy group, a thio group, or an imino group optionally substituted with a C1-C10 alkyl group),

a  $-Y_b-Y_b'-Y_b''$ - group (wherein  $Y_b$  and  $Y_b''$  are the same or different, and represent a methylene group, an oxy group, a thio group, a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and  $Y_b'$  represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or

a  $-Y_c-O-Y_c'-O-$  group (wherein  $Y_c$  and  $Y_c'$  are the same or different, and represent a C1-C10 alkylene group);

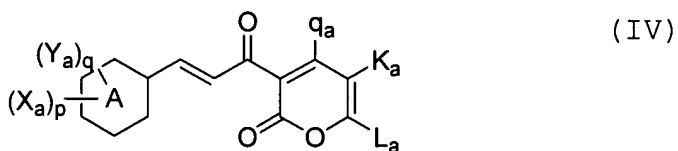
IV.  $Q_A$  represents a hydroxyl group, a (b)- group (wherein (b) is as defined above), an  $A_9-B_6-B_c$ - group [wherein  $A_9$  and  $B_6$  are as defined above, and  $B_c$  represents an oxy group or a  $-N((O)_mR_1)-$  group (wherein  $m$  and  $R_1$  are as defined above), provided that  $B_c$  is not a sulfonyl group when  $A_9$  is a hydrogen atom], an  $A_7''-SO_2-B_c-$  group (wherein  $A_7''$  and  $B_c$  are as defined above), an  $A_8-SO_2-B_c-$  group (wherein  $A_8$  and  $B_c$  are as defined above, provided that  $A_8$  is not a hydrogen atom), a  $R_1R_1'N-SO_2-B_c-$  group (wherein  $R_1$ ,  $R_1'$  and  $B_c$  are as defined above), a (b)- $SO_2-B_c-$  group (wherein (b) and  $B_c$  are as defined above), an  $A_9'-B_c-$  group (wherein  $A_9'$  and  $B_c$  are as defined above), a  $D_5-R_c-B_c-$  group (wherein  $D_5$ ,  $R_4$  and  $B_c$  are as defined above), a  $M_c-B_3-B_c-$  group (wherein  $M_c$ ,  $B_3$  and  $B_c$  are as defined above) or a  $M_c-B_c-$  group (wherein  $M_c$  and  $B_c$  are as defined above);



V.  $K_A$  represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group,  $L_A$  represents a hydrogen atom, a C1-C10 alkyl group or a  $M_b$ -group ( $M_b$  is as defined above), or  $K_A$  and  $L_A$  may form a C1-C10 alkylene group or a  $-C(M_a')=C(M_a'')-C(M_a''')=C(M_a''')$ -group ( $M_a'$ ,  $M_a''$ ,  $M_a'''$  and  $M_a''''$  are the same or different, are the same as or different from  $M_a$ , and represent a hydrogen atom or  $M_a$ ) ; and

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

**4. (Original)** A cinnamoyl compound represented by the formula (IV):



wherein

A represents a benzene ring or a pyridine ring,

$X_a$  is a substituent on a carbon atom, and represents a C1-C10 alkyl group substituted with a cyano group; a C1-C10 alkyl group substituted with a tetrahydropyran-4-ylidene group; a C2-C10 alkenyl group substituted with a halogen atom or a cyano group; a C2-C10 alkenyl group substituted with a C1-C10 alkoxy carbonyl group; a C3-C10 alkynyl group substituted with a hydroxyl group; an  $a_0-r_1-b-r_1'$ - group

{wherein  $a_0$  represents a methyl group substituted with a C1-C10 alkylthio group, a methyl group substituted with a C1-C10 alkylsulfinyl group, a methyl group substituted with a C1-C10 alkylsulfonyl group, a C2-C10 alkenyl group, a C2-C10 alkynyl group, a  $r_2O-CO-$  group (wherein  $r_2$  represents a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a hydroxyl group), a carboxyl group, a  $rr'N-CO-$  group (wherein  $r$  and  $r'$  are the same or different, and represent a hydrogen atom or a C1-C10 alkyl group), an  $a_1-NH-CO-$  group (wherein  $a_1$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group), an  $a_1'-CO-$  group (wherein  $a_1'$  represents a morpholino group), a  $rr'N-CH_2-$  group (wherein  $r$  and  $r'$  are as defined above), a  $r_0-(O)_1-CONH-CH_2-$  group (wherein  $r_0$  represents a C1-C10 alkyl group, and 1 represents 0 or 1), a  $r-OCH_2-$  group (wherein  $r$  is as defined above), a  $r_0-CO-$  group (wherein  $r_0$  is as defined above), a cyano group, or a sulfomethyl group,  $r_1$  represents a C1-C10 alkylene group,  $r_1'$  represents a single bond or a C1-C10 alkylene group, and  $b$  represents an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a imino group}; an  $a_2-y-CO-NH-$  group (wherein  $a_2$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, and  $y$  represents an oxy group or an imino group); a  $r_0O-COCO-NH-$  group (wherein  $r_0$  is as defined above); an  $a_3-z-NH-$  group (wherein  $a_3$  represents a C2-C10 alkenyl group, or a C1-C10 alkyl group substituted with a C1-10 alkoxy group, a C1-C10 alkoxy carbonyl group, a carboxy group or a cyano group, and  $z$  represents a carbonyl group or a sulfonyl group); an  $a_4-NHCO-$  group {wherein  $a_4$  represents a C1-C10 alkoxy group, or a C3-C10 alkenyloxy group, or a  $r_0-SO_2-$  group (wherein  $r_0$  is as defined above), or a C2-C10 alkyl group substituted with a hydroxyl group or a C1-C10 alkoxy group, or a C1-C10

alkyl group substituted with a  $rO-CO-$  group (wherein  $r$  is as defined above), a cyano group or an aminocarbonyl group, or a  $rO-CO-(rO-COCH_2)CH-$  group (wherein  $r$  is as defined above)); an  $a_5-NHSO_2-$  group (wherein  $a_5$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group); a  $r_0ON=CH-$  group (wherein  $r_0$  is as defined above); a  $r_0NHCSNH-$  group (wherein  $r_0$  is as defined above); a  $r_0NHC(-Sr_0')=N-$  group (wherein  $r_0$  is as defined above,  $r_0'$  is the same as the different from  $r_0$  and has the same meaning as  $r_0$  has); or a  $(r_0O)_2P(=O)CH_2-$  group (wherein  $r_0$  is as defined above);

$p$  represents 1, 2 or 3, and when  $p$  is 2 or more,  $X_{as}$  are the same or different;

$Y_a$  represents a halogen atom, a nitro group, a  $r_0CO-NH-$  group (wherein  $r_0$  is as defined above), a C1-C10 alkyl group or a C1-C10 alkoxy group;

$q$  represents 0, 1 or 2, and when  $q$  is 2 or more,  $Y_{as}$  are the same or different;

$q_a$  represents a  $r_a-O-$  group (wherein  $r_a$  represents a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, a C1-C10 alkyl group substituted with a  $r_0r_0'N-CH_2-$  group (wherein  $r_0$  and  $r_0'$  are as defined above), a  $rOCH_2-$  group (wherein  $r$  is as defined above), a  $r_0-CO-$  group (wherein  $r_0$  is as defined above), a C1-C10 alkoxycarbonyl group, a carboxy group, an aminocarbonyl group or a cyano group, or a  $r_3-r_1$ -group (wherein  $r_3$  represents a phenyl group or a pyridyl group, and  $r_1$  is as defined above)); a piperidino group; a morpholino group; or a  $r_4r_4'N-$  group (wherein  $r_4$  and  $r_4'$  are the same or different, and represent a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group,

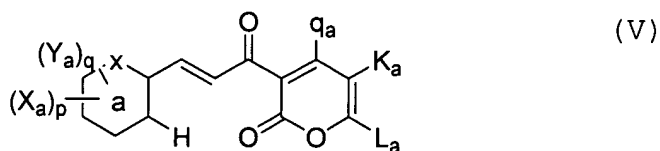
provided that  $r_4$  and  $r_4'$  are not a hydrogen atom at the same time);

$K_a$  represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, and  $L_a$  represents a hydrogen atom or a C1-C10 alkyl group; or

$K_a$  and  $L_a$  together may form a C1-C10 alkylene group or a 1,3-butadienylene group;

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

**5. (Original)** A cinnamoyl compound represented by the formula (V):



wherein

$a$  represents a benzene ring or a pyridine ring;

$x$  represents a methine group or a nitrogen atom;

$X_a$  is a substituent on a carbon atom, and represents a C1-C10 alkyl group substituted with a cyano group; a C1-C10 alkyl group substituted with a tetrahydropyran-4-ylidene group; a C2-C10 alkenyl group substituted with a halogen atom or a cyano group; a C2-C10 alkenyl group substituted with a C1-C10 alkoxycarbonyl group; a C3-C10 alkynyl group

substituted with a hydroxyl group; an  $a_0-r_1-b-r_1'$ - group {wherein  $a_0$  represents a methyl group substituted with a C1-C10 alkylthio group, a methyl group substituted with a C1-C10 alkylsulfinyl group, a methyl group substituted with a C1-C10 alkylsulfonyl group, a C2-C10 alkenyl group, a C2-C10 alkynyl group, a  $r_2O-CO-$  group (wherein  $r_2$  represents a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a hydroxyl group), a carboxyl group, a  $rr'N-CO-$  group (wherein  $r$  and  $r'$  are the same or different, and represent a hydrogen atom or a C1-C10 alkyl group), an  $a_1-NH-CO-$  group (wherein  $a_1$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group), an  $a_1'-CO-$  group (wherein  $a_1'$  represents a morpholino group), a  $rr'N-CH_2-$  group (wherein  $r$  and  $r'$  are as defined above), a  $r_0-(O)_1-CONH-CH_2-$  group (wherein  $r_0$  represents a C1-C10 alkyl group, and 1 represents 0 or 1), a  $r-OCH_2-$  group (wherein  $r$  is as defined above), a  $r_0-CO-$  group (wherein  $r_0$  is as defined above), a cyano group, or a sulfomethyl group,  $r_1$  represents a C1-C10 alkylene group,  $r_1'$  represents a single bond or a C1-C10 alkylene group, and  $b$  represents an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a imino group}; an  $a_2-y-CO-NH-$  group (wherein  $a_2$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, and  $y$  represents an oxy group or an imino group); a  $r_0O-COCO-NH-$  group (wherein  $r_0$  is as defined above); an  $a_3-z-NH-$  group (wherein  $a_3$  represents a C2-C10 alkenyl group, or a C1-C10 alkyl group substituted with a C1-10 alkoxy group, a C1-C10 alkoxycarbonyl group, a carboxy group or a cyano group, and  $z$  represents a carbonyl group or a sulfonyl group); an  $a_4-NHCO-$  group {wherein  $a_4$  represents a C1-C10 alkoxy group, or a C3-C10 alkenyloxy group, or a  $r_0-SO_2-$  group (wherein  $r_0$  is as defined above), or a C2-C10 alkyl group substituted with

a hydroxyl group or a C1-C10 alkoxy group, or a C1-C10 alkyl group substituted with a  $rO-CO-$  group (wherein  $r$  is as defined above), a cyano group or an aminocarbonyl group, or a  $rO-CO-(rO-COCH_2)CH-$  group (wherein  $r$  is as defined above)); an  $a_5-NHSO_2-$  group (wherein  $a_5$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group); a  $r_0ON=CH-$  group (wherein  $r_0$  is as defined above); a  $r_0NHCSNH-$  group (wherein  $r_0$  is as defined above); a  $r_0NHC(-Sr_0')=N-$  group (wherein  $r_0$  is as defined above,  $r_0'$  is the same as the different from  $r_0$  and has the same meaning as  $r_0$  has); or a  $(r_0O)_2P(=O)CH_2-$  group (wherein  $r_0$  is as defined above);

$p$  represents 1, 2 or 3, and when  $p$  is 2 or more,  $X_a s$  are the same or different;

$Y_a$  represents a halogen atom, a nitro group, a  $r_0CO-NH-$  group (wherein  $r_0$  is as defined above), a C1-C10 alkyl group or a C1-C10 alkoxy group;

$q$  represents 0, 1 or 2, and when  $q$  is 2 or more,  $Y_a s$  are the same or different;

$q_a$  represents a  $r_a-O-$  group {wherein  $r_a$  represents a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, a C1-C10 alkyl group substituted with a  $r_0r_0'N-CH_2-$  group (wherein  $r_0$  and  $r_0'$  are as defined above), a  $rOCH_2-$  group (wherein  $r$  is as defined above), a  $r_0-CO-$  group (wherein  $r_0$  is as defined above), a C1-C10 alkoxy carbonyl group, a carboxy group, an aminocarbonyl group or a cyano group, or a  $r_3-r_1$ -group (wherein  $r_3$  represents a phenyl group or a pyridyl group, and  $r_1$  is as defined above)); a piperidino group; a morpholino group; or a  $r_4r_4'N-$  group (wherein  $r_4$  and  $r_4'$  are the same or different, and represent a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group,

provided that  $r_4$  and  $r_4'$  are not a hydrogen atom at the same time);

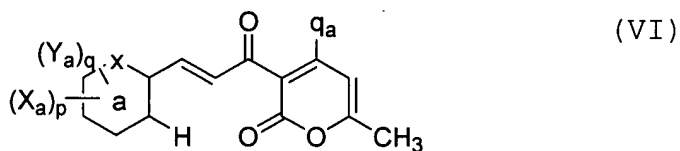
$t_a$  represents a  $r_b$ - group (wherein  $r_b$  is the same as or different from  $r_a$ , and has the same meaning as  $r_a$  has) or a  $r_3'$ - group (wherein  $r_3'$  is the same as or different from  $r_3$ , and has the same meaning as  $r_3$  has);

$K_a$  represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, and  $L_a$  represents a hydrogen atom or a C1-C10 alkyl group; or

$K_a$  and  $L_a$  together may form a C1-C10 alkylene group or a 1,3-butadienylene group;

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

**6. (Original)** A 2H-pyran-2-one compound represented by the formula (VI):



wherein

$a$  represents a benzene ring or a pyridine ring;

$x$  represents a methine group or a nitrogen atom;

$X_a$  is a substituent on a carbon atom, and represents a C1-C10 alkyl group substituted with a cyano group; a C1-C10 alkyl group substituted with a tetrahydropyran-4-ylidene group; a C2-C10 alkenyl group substituted with a halogen atom or a cyano group; a C2-C10 alkenyl group substituted with a C1-C10 alkoxy carbonyl group; a C3-C10 alkynyl group substituted with a hydroxyl group; an  $a_0-r_1-b-r_1'$ - group {wherein  $a_0$  represents a methyl group substituted with a C1-C10 alkylthio group, a methyl group substituted with a C1-C10 alkylsulfinyl group, a methyl group substituted with a C1-C10 alkylsulfonyl group, a C2-C10 alkenyl group, a C2-C10 alkynyl group, a  $r_2O-CO-$  group (wherein  $r_2$  represents a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a hydroxyl group), a carboxyl group, a  $rr'N-CO-$  group (wherein  $r$  and  $r'$  are the same or different, and represent a hydrogen atom or a C1-C10 alkyl group), an  $a_1-NH-CO-$  group (wherein  $a_1$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group), an  $a_1'-CO-$  group (wherein  $a_1'$  represents a morpholino group), a  $rr'N-CH_2-$  group (wherein  $r$  and  $r'$  are as defined above), a  $r_0-(O)_1-CONH-CH_2-$  group (wherein  $r_0$  represents a C1-C10 alkyl group, and 1 represents 0 or 1), a  $r-OCH_2-$  group (wherein  $r$  is as defined above), a  $r_0-CO-$  group (wherein  $r_0$  is as defined above), a cyano group, or a sulfomethyl group,  $r_1$  represents a C1-C10 alkylene group,  $r_1'$  represents a single bond or a C1-C10 alkylene group, and  $b$  represents an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a imino group}; an  $a_2-y-CO-NH-$  group (wherein  $a_2$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, and  $y$  represents an oxy group or an imino group); a  $r_0O-COCO-NH-$  group (wherein  $r_0$  is as defined above); an  $a_3-z-NH-$  group (wherein  $a_3$  represents a C2-C10 alkenyl group, or a C1-C10 alkyl group



substituted with a C1-10 alkoxy group, a C1-C10 alkoxy carbonyl group, a carboxy group or a cyano group, and z represents a carbonyl group or a sulfonyl group); an  $a_4$ -NHCO- group {wherein  $a_4$  represents a C1-C10 alkoxy group, or a C3-C10 alkenyloxy group, or a  $r_0$ -SO<sub>2</sub>- group (wherein  $r_0$  is as defined above), or a C2-C10 alkyl group substituted with a hydroxyl group or a C1-C10 alkoxy group, or a C1-C10 alkyl group substituted with a  $r_0$ -CO- group (wherein  $r$  is as defined above), a cyano group or an aminocarbonyl group, or a  $r_0$ -CO-( $r_0$ -COCH<sub>2</sub>)CH- group (wherein  $r$  is as defined above)}; an  $a_5$ -NHSO<sub>2</sub>- group (wherein  $a_5$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group); a  $r_0$ ON=CH- group (wherein  $r_0$  is as defined above); a  $r_0$ NHCSNH- group (wherein  $r_0$  is as defined above); a  $r_0$ NHC(-Sr<sub>0</sub>')=N- group (wherein  $r_0$  is as defined above,  $r_0'$  is the same as the different from  $r_0$  and has the same meaning as  $r_0$  has); or a ( $r_0$ O)<sub>2</sub>P(=O)CH<sub>2</sub>- group (wherein  $r_0$  is as defined above);

p represents 1, 2 or 3, and when p is 2 or more, X<sub>a</sub>s are the same or different;

Y<sub>a</sub> represents a halogen atom, a nitro group, a  $r_0$ CO-NH- group (wherein  $r_0$  is as defined above), a C1-C10 alkyl group or a C1-C10 alkoxy group;

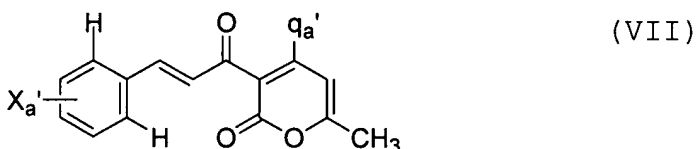
q represents 0, 1 or 2, and when q is 2 or more, Y<sub>a</sub>s are the same or different;

q<sub>a</sub> represents a  $r_a$ -O- group {wherein  $r_a$  represents a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, a C1-C10 alkyl group substituted with a  $r_0$ r<sub>0</sub>'N-CH<sub>2</sub>- group (wherein  $r_0$  and  $r_0'$  are as defined above), a  $r$ OCH<sub>2</sub>- group (wherein  $r$  is as defined above), a  $r_0$ -CO- group (wherein  $r_0$  is as defined above), a C1-C10 alkoxy carbonyl group, a carboxy group, an aminocarbonyl group or a cyano group, or a  $r_3$ -r<sub>1</sub>-group (wherein  $r_3$

represents a phenyl group or a pyridyl group, and  $r_1$  is as defined above)); a piperidino group; a morpholino group; or a  $r_4r_4'$ N- group (wherein  $r_4$  and  $r_4'$  are the same or different, and represent a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, provided that  $r_4$  and  $r_4'$  are not a hydrogen atom at the same time);

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

**7. (Original)** A 2H-pyran-2-one compound represented by the formula (VII):

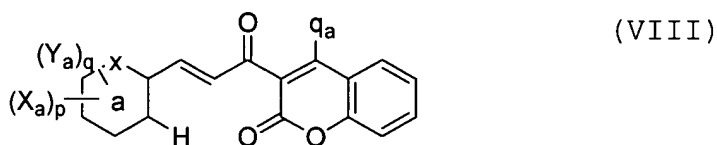


wherein

$X_a'$  represents a C1-C10 alkyl group substituted with a cyano group, or a C2-C10 alkenyl group substituted with a halogen atom or a cyano group, or an  $a_0'-r_1$ -O-group ( $a_0'$  represents a methyl group substituted with a C1-C10 alkylthio group, a C2-C10 alkenyl group, a C2-C10 alkynyl group, a  $HOCH_2$ -group or a cyano group, and  $r_1$  represents a

C1-C10 alkylene group}, or an  $a_6$ -CONH-group ( $a_6$  represents a C1-C10 alkyl group substituted with a C1-C10 alkoxy group, or a C2-C10 alkoxy group substituted with a C1-C10 alkoxy group), or an  $a_7$ -NHCO-group ( $a_7$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, or a C1-C10 alkyl group substituted with a C1-C10 alkoxycarbonyl group);  $q_a'$  represents an amino group substituted with a C3-C10 alkynyl group, a piperidino group, a morpholino group or a  $r_a'$ -O-group ( $r_a'$  represents a hydrogen atom, a C1-C10 alkyl group or a C3-C10 alkenyl group).

**8. (Original)** A 2H-1-benzopyran-2-one compound represented by the formula (VIII):



wherein

$a$  represents a benzene ring or a pyridine ring;

$x$  represents a methine group or a nitrogen atom;

$X_a$  is a substituent on a carbon atom, and represents a C1-C10 alkyl group substituted with a cyano group; a C1-C10 alkyl group substituted with a tetrahydropyran-4-ylidene group; a C2-C10 alkenyl group substituted with a halogen atom or a cyano group; a C2-C10 alkenyl group substituted with a C1-C10 alkoxycarbonyl group; a C3-C10 alkynyl group substituted with a hydroxyl group; an  $a_0$ - $r_1$ - $b$ - $r_1'$ - group {wherein  $a_0$  represents a methyl group substituted with a C1-C10 alkylthio group, a methyl group substituted with a C1-C10 alkylsulfinyl group, a methyl group substituted with a

C1-C10 alkylsulfonyl group, a C2-C10 alkenyl group, a C2-C10 alkynyl group, a  $r_2O-CO-$  group (wherein  $r_2$  represents a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a hydroxyl group), a carboxyl group, a  $rr'N-CO-$  group (wherein  $r$  and  $r'$  are the same or different, and represent a hydrogen atom or a C1-C10 alkyl group), an  $a_1-NH-CO-$  group (wherein  $a_1$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group), an  $a_1'-CO-$  group (wherein  $a_1'$  represents a morpholino group), a  $rr'N-CH_2-$  group (wherein  $r$  and  $r'$  are as defined above), a  $r_0-(O)_1-CONH-CH_2-$  group (wherein  $r_0$  represents a C1-C10 alkyl group, and 1 represents 0 or 1), a  $r-OCH_2-$  group (wherein  $r$  is as defined above), a  $r_0-CO-$  group (wherein  $r_0$  is as defined above), a cyano group, or a sulfomethyl group,  $r_1$  represents a C1-C10 alkylene group,  $r_1'$  represents a single bond or a C1-C10 alkylene group, and  $b$  represents an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a imino group}; an  $a_2-y-CO-NH-$  group (wherein  $a_2$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, and  $y$  represents an oxy group or an imino group); a  $r_0O-COCO-NH-$  group (wherein  $r_0$  is as defined above); an  $a_3-z-NH-$  group (wherein  $a_3$  represents a C2-C10 alkenyl group, or a C1-C10 alkyl group substituted with a C1-10 alkoxy group, a C1-C10 alkoxycarbonyl group, a carboxy group or a cyano group, and  $z$  represents a carbonyl group or a sulfonyl group); an  $a_4-NHCO-$  group (wherein  $a_4$  represents a C1-C10 alkoxy group, or a C3-C10 alkenyloxy group, or a  $r_0-SO_2-$  group (wherein  $r_0$  is as defined above), or a C2-C10 alkyl group substituted with a hydroxyl group or a C1-C10 alkoxy group, or a C1-C10 alkyl group substituted with a  $rO-CO-$  group (wherein  $r$  is as defined above), a cyano group or an aminocarbonyl group, or a  $rO-CO-(rO-COCH_2)CH-$  group (wherein  $r$  is as defined

above)); an  $a_5$ -NHSO<sub>2</sub>- group (wherein  $a_5$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group); a  $r_0$ ON=CH- group (wherein  $r_0$  is as defined above); a  $r_0$ NHCSNH- group (wherein  $r_0$  is as defined above); a  $r_0$ NHC(-Sr<sub>0</sub>')=N- group (wherein  $r_0$  is as defined above,  $r_0'$  is the same as the different from  $r_0$  and has the same meaning as  $r_0$  has); or a  $(r_0O)_2P(=O)CH_2$ - group (wherein  $r_0$  is as defined above);

$p$  represents 1, 2 or 3, and when  $p$  is 2 or more,  $X_{as}$  are the same or different;

$Y_a$  represents a halogen atom, a nitro group, a  $r_0$ CO-NH- group (wherein  $r_0$  is as defined above), a C1-C10 alkyl group or a C1-C10 alkoxy group;

$q$  represents 0, 1 or 2, and when  $q$  is 2 or more,  $Y_{as}$  are the same or different;

$q_a$  represents a  $r_a$ -O- group {wherein  $r_a$  represents a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, a C1-C10 alkyl group substituted with a  $r_0r_0'$ N-CH<sub>2</sub>- group (wherein  $r_0$  and  $r_0'$  are as defined above), a  $rOCH_2$ - group (wherein  $r$  is as defined above), a  $r_0$ -CO- group (wherein  $r_0$  is as defined above), a C1-C10 alkoxycarbonyl group, a carboxy group, an aminocarbonyl group or a cyano group, or a  $r_3$ - $r_1$ -group (wherein  $r_3$  represents a phenyl group or a pyridyl group, and  $r_1$  is as defined above)); a piperidino group; a morpholino group; or a  $r_4r_4'$ N- group (wherein  $r_4$  and  $r_4'$  are the same or different, and represent a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, provided that  $r_4$  and  $r_4'$  are not a hydrogen atom at the same time);

$t_a$  represents a  $r_b$ - group (wherein  $r_b$  is the same as or different from  $r_a$ , and has the same meaning as  $r_a$  has) or a

<sup>6</sup>  
 $r_3'$ - group (wherein  $r_3'$  is the same as or different from  $r_3$ , and has the same meaning as  $r_3$  has);

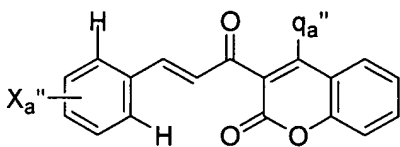
$K_a$  represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, and  $L_a$  represents a hydrogen atom or a C1-C10 alkyl group; or

$K_a$  and  $L_a$  together may form a C1-C10 alkylene group or a 1,3-butadienylene group;

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

**9. (Original)** A 2H-1-benzopyran-2-one compound represented by the formula (IX):

( IX )

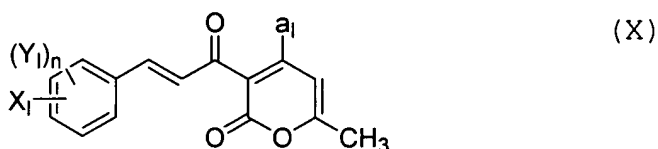


wherein

$X_a''$  represents a C1-C10 alkoxy group substituted with a cyano group or a hydroxymethyl group, or an  $a_6$ -CONH-group ( $a_6$  represents a C1-C10 alkyl group substituted with a C1-C10 alkoxy group, or a C2-C10 alkoxy group substituted with a C1-C10 alkoxy group), or an  $a_7$ -NHCO-group ( $a_7$  represents a C2-C10 alkyl group substituted with a hydroxy group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group,

or a C1-C10 alkyl group substituted with a C1-C10 alkoxy carbonyl group), and  $q_a''$  represents a hydroxy group, a C1-C10 alkoxy group or a piperidino group;

**10. (Original)** A 2H-pyran-2-one compound represented by the formula (X):

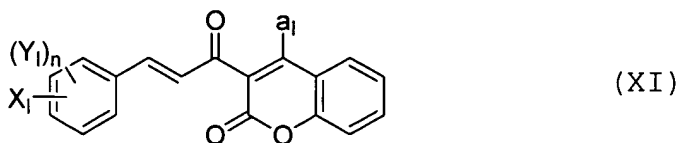


wherein

$X_I$  represents a C2-C4 alkenyl group substituted with a cyano group, an  $A_I-R_I-O$ -group ( $A_I$  represents a C1-C4 alkylthio group, a C2-C4 alkenyl group, a C2-C4 alkynyl group, a C1-C4 alkoxy carbonyl group, a carboxy group or a cyano group, and  $R_I$  represents a C1-C4 alkylene group), an  $A_{II}-(y)_m-z-NH$ -group ( $A_{II}$  represents a C2-C4 alkenyl group, or a C1-C4 alkyl group substituted with a C1-C4 alkoxy group, a C1-C4 alkoxy carbonyl group, a carboxy group or a cyano group,  $y$  represents an oxy group or an imino group,  $z$  represents a carbonyl group or a sulfonyl group, and  $m$  represents 0 or 1) or an  $A_{III}-NHCO$ -group ( $A_{III}$  represents a methanesulfonyl group, or a C1-C4 alkyl group substituted with a hydroxy group, a C1-C4 alkoxy group, a C1-C4 alkoxy carbonyl group, a carboxy group or a cyano group),  $a_I$  represents a hydroxy group, a C1-C4 alkoxy group, a C2-C4 alkenyloxy group, a C2-C4 alkynyloxy group, a C1-C4 alkylamino group, a C2-C4 alkenylamino group, a C2-C4 alkynylamino group, a morpholino group or a piperidino group,  $Y_I$  represents a halogen atom, a nitro group, a C1-C4

alkyl group or a C1-C4 alkoxy group, n represents 0, 1 or 2 and, when n is 2, Y<sub>I</sub>s may be different;

**11. (Original)** A 2H-1-benzopyran-2-one compound represented by the formula (XI):



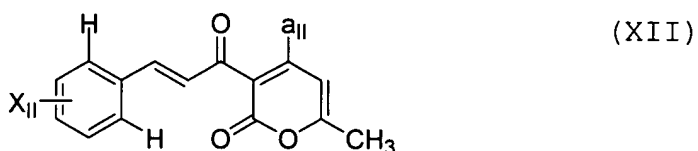
wherein

X<sub>I</sub> represents a C2-C4 alkenyl group substituted with a cyano group, an A<sub>I</sub>-R<sub>I</sub>-O-group (A<sub>I</sub> represents a C1-C4 alkylthio group, a C2-C4 alkenyl group, a C2-C4 alkynyl group, a C1-C4 alkoxycarbonyl group, a carboxy group or a cyano group, and R<sub>I</sub> represents a C1-C4 alkylene group), an A<sub>II</sub>-(y)<sub>m</sub>-z-NH-group (A<sub>II</sub> represents a C2-C4 alkenyl group, or a C1-C4 alkyl group substituted with a C1-C4 alkoxy group, a C1-C4 alkoxycarbonyl group, a carboxy group or a cyano group, y represents an oxy group or an imino group, z represents a carbonyl group or a sulfonyl group, and m represents 0 or 1) or an A<sub>III</sub>-NHCO-group (A<sub>III</sub> represents a methanesulfonyl group, or a C1-C4 alkyl group substituted with a hydroxy group, a C1-C4 alkoxy group, a C1-C4 alkoxycarbonyl group, a carboxy group or a cyano group), a<sub>I</sub> represents a hydroxy group, a C1-C4 alkoxy group, a C2-C4 alkenyloxy group, a C2-C4 alkynyloxy group, a C1-C4 alkylamino group, a C2-C4 alkenylamino group, a C2-C4 alkynylamino group, a morpholino group or a piperidino group, Y<sub>I</sub> represents a halogen atom, a nitro group, a C1-C4



alkyl group or a C1-C4 alkoxy group, n represented 0, 1 or 2 and, when n is 2, Y<sub>I</sub>'s may be different;

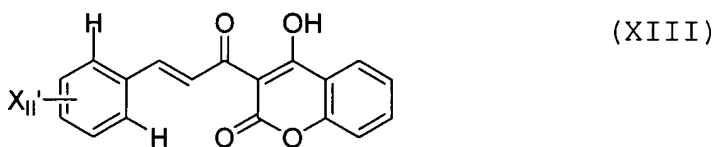
**12. (Original)** A 2H-pyran-2-one compound represented by the formula (XII):



wherein

X<sub>II</sub> represents an allyloxy group, a propargyloxy group, a cyanomethoxy group, a methoxyacetyl amino group, a methoxycarbonylmethylaminocarbonyl group or a 2-cyanoethenyl group, and a<sub>II</sub> represents a hydroxy group, a methoxy group or a morpholino group;

**13. (Original)** A 2H-1-benzopyran-2-one compound represented by the formula (XIII):

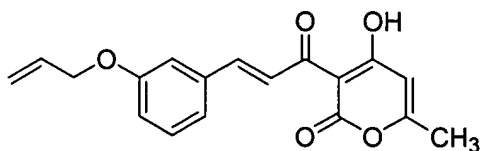


wherein

X<sub>II</sub>' represents a cyanomethoxy group, a methoxyacetyl amino group or a 2-hydroxyethylaminocarbonyl group;

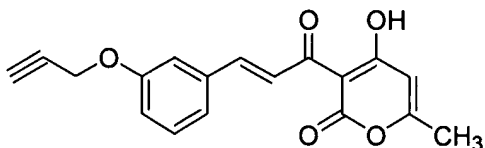
14. (Currently amended) [[A]] The 2H-pyran-2-one compound according to claim 1 represented by the formula (XIV):

(XIV) ;



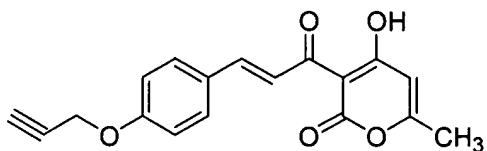
15. (Currently amended) [[A]] The 2H-pyran-2-one compound according to claim 1 represented by the formula (XV):

(XV) ;



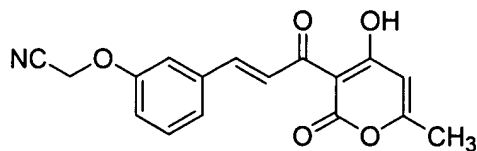
16. (Currently amended) [[A]] The 2H-pyran-2-one compound according to claim 1 represented by the formula (XVI):

(XVI) ;

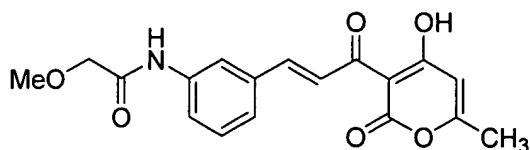


17. (Currently amended) [[A]] The 2H-pyran-2-one compound according to claim 1 represented by the formula (XVII):

( XVII ) ;

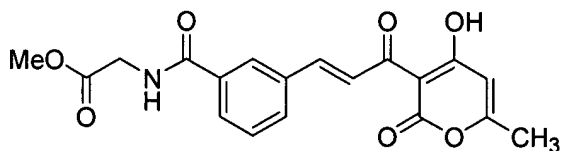


**18. (Currently amended)** [[A]] The 2H-pyran-2-one compound according to claim 1 represented by the formula (XVIII):



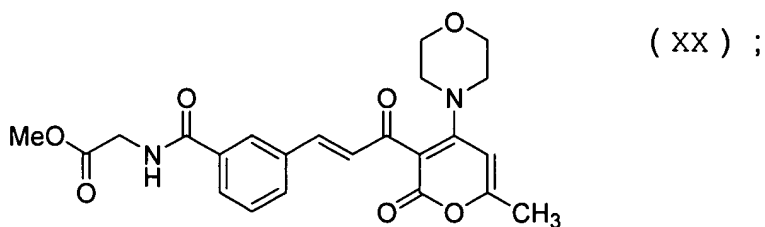
( XVIII ) ;

**19. (Currently amended)** [[A]] The 2H-pyran-2-one compound according to claim 1 represented by the formula (XIX):

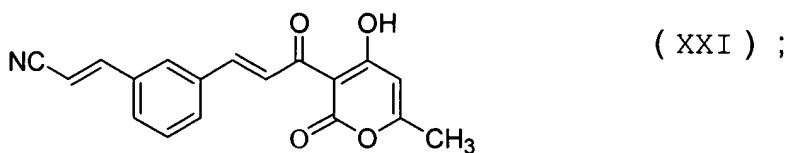


( XIX ) ;

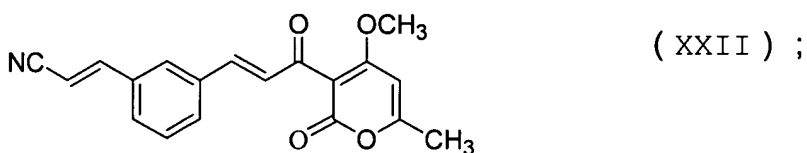
**20. (Currently amended)** [[A]] The 2H-pyran-2-one compound according to claim 1 represented by the formula (XX):



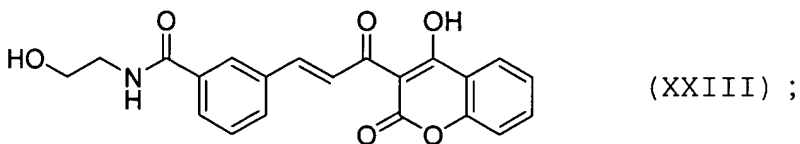
**21. (Currently amended)** [[A]] The 2H-pyran-2-one compound according to claim 1 represented by the formula (XXI):



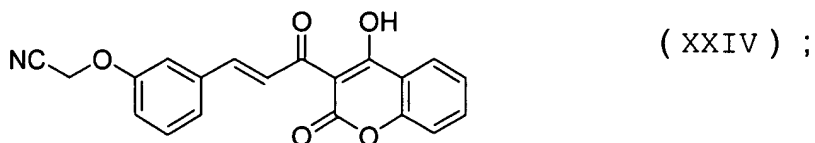
**22. (Currently amended)** [[A]] The 2H-pyran-2-one compound according to claim 1 represented by the formula (XXII):



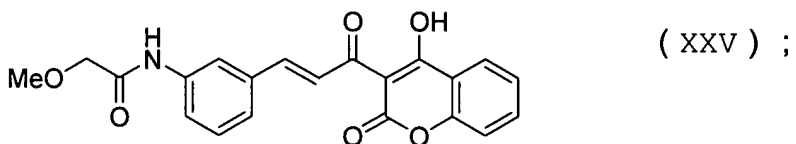
**23. (Currently amended)** [[A]] The 2H-a-benzopyran-2-one compound represented by the formula (XXIII):



**24. (Currently amended)** [[A]] The 2H-a-benzopyran-2-one compound according to claim 1 represented by the formula (XXIV) :



**25. (Currently amended)** [[A]] The 2H-1-benzopyran-2-one compound according to claim 1 represented by the formula (XXV) :



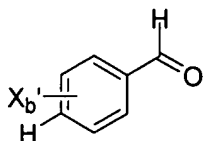
**26. (Original)** A benzaldehyde derivative represented by the formula (XXVI-1) :



[wherein X<sub>b</sub> represents a MeO-COCH<sub>2</sub>NHCO-group, a MeOCH<sub>2</sub>CHO-CO-NH-group, a MeOCH<sub>2</sub>CH<sub>2</sub>NH-CO-NH-group, a MeSO<sub>2</sub>NH-CO-group, a NCCH<sub>2</sub>NH-CO-group, a F<sub>2</sub>C=CH-group, a MeO-CO-(MeO-COCH<sub>2</sub>-)CH-

group, a  $\text{MeOCH}_2\text{CH}_2\text{NH-SO}_2$ -group, a  $\text{MeO-NHCO}$ -group or a  $\text{CH}_2=\text{CHCH}_2\text{O-NHCO}$ -group.];

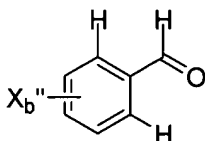
the formula (XXVI -2):



(XXVI-2)

[wherein  $X_b'$  represents a  $\text{MeOCH}_2\text{CO-NH}$ -group or a  $\text{MeOCH}_2\text{CH}_2\text{NH-CO}$ -group.];

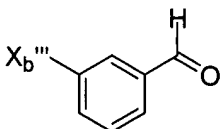
the formula (XXVI-3):



(XXVI-3)

[wherein  $X_b''$  represents a  $\text{MeSCH}_2\text{CH}_2\text{O}$ -group, a  $\text{HOCH}_2\text{CH}_2\text{OCH}_2$ -group or a  $\text{NC-CH}_2\text{CH}_2$ -group.] or

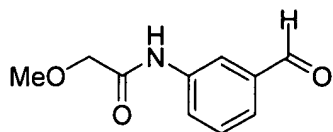
the formula (XXVI-4):



(XXVI-4)

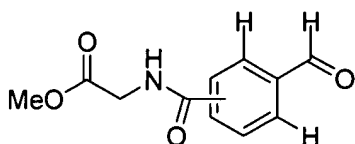
[wherein  $X_b'''$  represents a  $\text{NCCH=CH}$ -group, a  $\text{H}_2\text{NCOCH}_2\text{O}$ -group, a  $\text{MeCOCH}_2\text{O}$ -group, a  $\text{CH}_3\text{O-COCH}_2\text{SCH}_2$ -group, a tetrahydropyran-4-ylidenemethyl group, a  $\text{CH}_3\text{O-COCO-NH}$ -group or a  $(\text{CH}_3\text{O})_2\text{P(=O)CH}_2$ -group.]; or 6-formyl-2-[(2-methoxyethyl)aminocarbonyl]pyridine;

**27. (Currently amended)** [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XXVII):



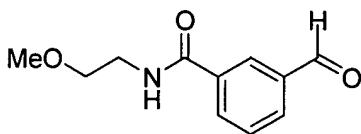
( XXVII )

**28. (Currently amended)** [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XXVIII):



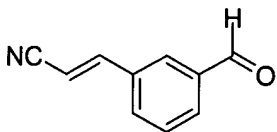
( XXVIII )

**29. (Currently amended)** [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XXIX):



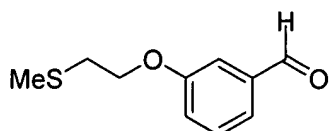
( XXIX )

**30. (Currently amended)** [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XXX):



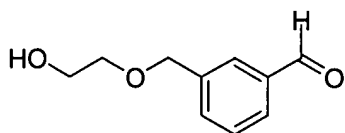
( XXX )

**31. (Currently amended)** [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XXXI):



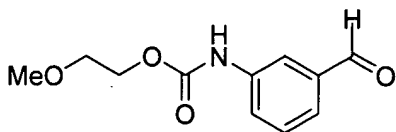
( XXXI )

**32. (Currently amended)** [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XXXII):



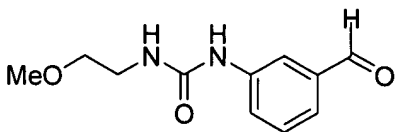
( XXXII )

**33. (Currently amended)** [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XXXIII):



( XXXIII )

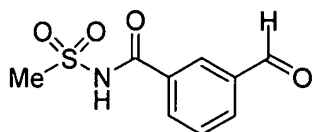
**34. (Currently amended)** [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XXXIV):



( XXXIV )

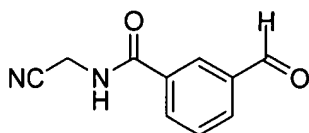
**35. (Currently amended)** [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XXXV):





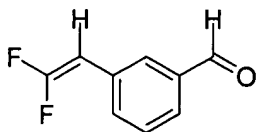
( XXXV )

36. (Currently amended) [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XXXVI):



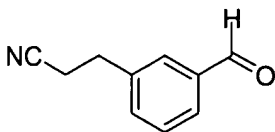
( XXXVI )

37. (Currently amended) [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XXXVII):



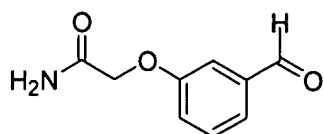
( XXXVII )

38. (Currently amended) [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XXXVIII):



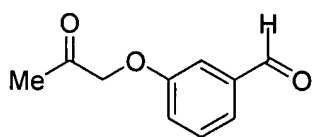
( XXXVIII )

39. (Currently amended) [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XXXIX):



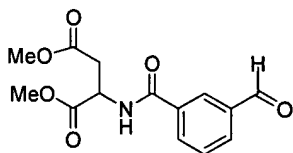
(XXXIX)

**40. (Currently amended)** [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XL):



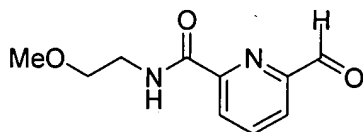
( XL )

**41. (Currently amended)** [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XLI):



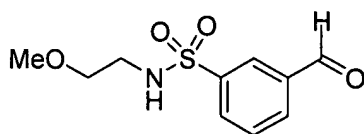
( XLI )

**42. (Currently amended)** [[A]] The pyridinecarbaldehyde derivative according to claim 26 represented by the formula (XLII):



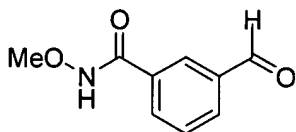
( XLII )

**43. (Currently amended)** [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XLIII):



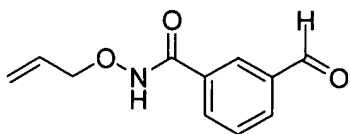
(XLIII)

**44. (Currently amended)** [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XLIV):



(XLIV)

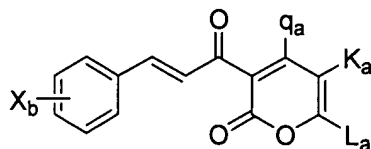
**45. (Currently amended)** [[A]] The benzaldehyde derivative according to claim 26 represented by the formula (XLV):



( XLV )

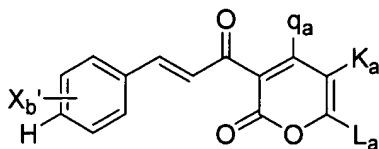
**46. (Original)** A process for producing a cynamoyl compound represented by the formula (XLVI-1):

(XLVI-1)



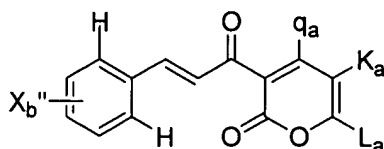
wherein  $X_b$  represents a  $\text{MeO-COCH}_2\text{NHCO}$ -group, a  $\text{MeOCH}_2\text{CH}_2\text{O-CO-NH}$ -group, a  $\text{MeOCH}_2\text{CH}_2\text{NH-CO-NH}$ -group, a  $\text{MeSO}_2\text{NH-CO}$ -group, a  $\text{NCCH}_2\text{NH-CO}$ -group, a  $\text{F}_2\text{C=CH}$ -group, a  $\text{MeO-CO-(MeO-COCH}_2\text{-)CH}$ -group, a  $\text{MeOCH}_2\text{CH}_2\text{NH-SO}_2$ -group, a  $\text{MeO-NHCO}$ -group or a  $\text{CH=CHCH}_2\text{O-NHCO}$ -group, and  $q_a$ ,  $K_a$  and  $L_a$  are as defined below, the formula (XLVI-2):

(XLVI-2)

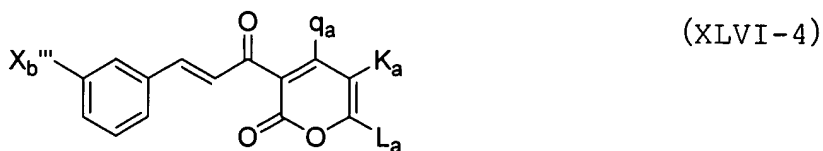


wherein  $X_b'$  represents a  $\text{MeOCH}_2\text{CO-NH}$ -group or a  $\text{MeOCH}_2\text{CH}_2\text{NH-CO}$ -group,  $q_a$ ,  $K_a$  and  $L_a$  are as defined below, the formula (XLVI-3):

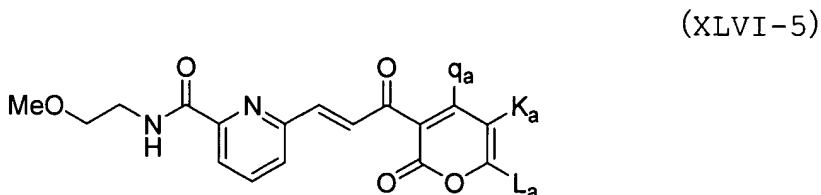
(XLVI-3)



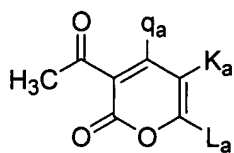
wherein  $X_b''$  represents a  $\text{MeSCH}_2\text{CH}_2\text{O}$ -group, a  $\text{HOCH}_2\text{CH}_2\text{OCH}_2$ -group or a  $\text{NC-CH}_2\text{CH}_2$ -group, and  $q_a$ ,  $K_a$  and  $L_a$  are as defined below, the formula (XLVI-4):



wherein  $X_b'''$  represents a  $\text{NCCH=CH}$ -group, a  $\text{H}_2\text{NCOCH}_2\text{O}$ -group, a  $\text{MeCOCH}_2\text{O}$ -group, a  $\text{CH}_3\text{O-COCH}_2\text{SCH}_2$ -group, a tetrahydropyran-4-ylidenemethyl group, a  $\text{CH}_3\text{O-COCO-NH}$ -group or a  $(\text{CH}_3\text{O})_2\text{P(=O)CH}_2$ -group, and  $q_a$ ,  $K_a$  and  $L_a$  are as defined below, or the formula (XLVI-5):



wherein  $q_a$ ,  $K_a$  and  $L_a$  are as defined below, which comprises reacting a benzaldehyde derivative represented by the formula (XXVI-1), the formula (XXVI-2), the formula (XXVI-3) or the formula (XXVI-4), or 6-formyl-2-[(2-methoxyethyl)aminocarbonyl]pyridine as defined in the above item 26, with a compound represented by the formula (XLVI):



(XLVI)

wherein

$q_a$  represents a  $r_a$ -O-group {wherein  $r_a$  represents a hydrogen atom; a C1-C10 alkyl group; a C3-C10 alkenyl group; a C3-C10 alkynyl group; a C1-C10 alkyl group substituted with a  $r_0r_0'$ N-CH<sub>2</sub>- group (wherein  $r_0$  and  $r_0'$  are the same or different, and represent a C1-C10 alkyl group), a  $rOCH_2$ - group (wherein  $r$  represents a hydrogen atom or a C1-C10 alkyl group), a  $r_0$ -CO- group (wherein  $r_0$  is as defined above), a C1-C10 alkoxycarbonyl group, a carboxy group, an aminocarbonyl group or a cyano group; or a  $r_3$ - $r_1$ -group (wherein  $r_3$  represents a phenyl group or a pyridyl group, and  $r_1$  represents a C1-C10 alkylene group)}, a piperidino group, a morpholino group, or a  $r_4r_4'$ N- group (wherein  $r_4$  and  $r_4'$  are the same or different, and represent a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, provided that  $r_4$  and  $r_4'$  are not a hydrogen atom at the same time),

$K_a$  represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, and  $L_a$  represents a hydrogen atom or a C1-C10 alkyl group, or

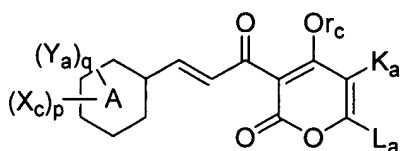
$K_a$  and  $L_a$  together may form a C1-C10 alkylene group or a 1,3-butadienylene group, and

the term "as defined above (or below)" used for the same symbols among plural substituents means that the

plural substituents independently represent the same meaning as that described above (or below) and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

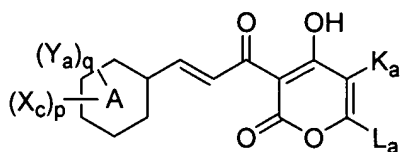
**47. (Original)** A process for producing a cinnamoyl compound represented by the formula (XLVII''):

(XLVII'')



wherein A, X<sub>c</sub>, Y<sub>a</sub>, p, q, r<sub>c</sub>, K<sub>a</sub> and L<sub>a</sub> are as defined below, and the term "as defined above (or below)" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above (or below) and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range; which comprises reacting a cinnamoyl compound represented by the formula (XLVII):

( XLVII )



wherein

A represents a benzene ring or a pyridine ring,

$X_c$  is a substituent on a carbon atom, and represents a C1-C10 alkyl group substituted with a cyano group; a C1-C10 alkyl group substituted with a tetrahydropyran-4-ylidene group; a C2-C10 alkenyl group substituted with a halogen atom or a cyano group; a C2-C10 alkenyl group substituted with a C1-C10 alkoxycarbonyl group; a C2-C10 alkynyl group substituted with a hydroxymethyl group; an  $a_{0c}-r_1-b-r_1'$ -group (wherein  $a_{0c}$  represents a methyl group substituted with a C1-C10 alkylthio group, a methyl group substituted with a C1-C10 alkylsulfinyl group, a methyl group substituted with a C1-C10 alkylsulfonyl group, a C2-C10 alkenyl group, a C2-C10 alkynyl group, a  $r_2O-CO-$  group (wherein  $r_2$  represents a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a hydroxyl group), a  $rr'N-CO-$  group (wherein  $r$  and  $r'$  are the same or different, and represent a hydrogen atom or a C1-C10 alkyl group), an  $a_1-NH-CO-$  group (wherein  $a_1$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group), an  $a_1'-CO-$  group (wherein  $a_1'$  represents a morpholino group), a  $rr'N-CH_2-$  group (wherein  $r$  and  $r'$  are as defined above), a  $r_0-(O)_1-CONH-CH_2-$  group (wherein  $r_0$  represents a C1-C10 alkyl group, and 1 represents 0 or 1), a  $r-OCH_2-$  group (wherein  $r$  is as defined above), a  $r_0-CO-$  group (wherein  $r_0$  is as defined



above), or a cyano group,  $r_1$  represents a C1-C10 alkylene group,  $r_1'$  represents a single bond or a C1-C10 alkylene group, and b represents an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a imino group}; an  $a_2$ -y-CO-NH- group (wherein  $a_2$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, and y represents an oxy group or an imino group); a  $r_0$ O-COCO-NH- group (wherein  $r_0$  is as defined above); an  $a_3$ -z-NH- group (wherein  $a_3$  represents a C2-C10 alkenyl group, or a C1-C10 alkyl group substituted with a C1-10 alkoxy group, a C1-C10 alkoxycarbonyl group or a cyano group, and z represents a carbonyl group or a sulfonyl group); an  $a_4$ -NHCO- group {wherein  $a_4$  represents a C1-C10 alkoxy group, or a C3-C10 alkenyloxy group, or a  $r_0$ -SO<sub>2</sub>- group (wherein  $r_0$  is as defined above), or a C2-C10 alkyl group substituted with a hydroxyl group or a C1-C10 alkoxy group, or a C1-C10 alkyl group substituted with a  $r_0$ O-CO- group (wherein  $r_0$  is as defined above), a cyano group or an aminocarbonyl group, or a  $r_0$ O-CO-( $r_0$ O-COCH<sub>2</sub>)CH- group (wherein  $r_0$  is as defined above)}; an  $a_5$ -NHSO<sub>2</sub>- group (wherein  $a_5$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy group); a  $r_0$ ON=CH- group (wherein  $r_0$  is as defined above); a  $r_0$ NHCSNH- group (wherein  $r_0$  is as defined above); a  $r_0$ NHC(-Sr<sub>0</sub>')=N- group (wherein  $r_0$  is as defined above,  $r_0'$  is the same as the different from  $r_0$  and has the same meaning as  $r_0$  has); or a ( $r_0$ O)<sub>2</sub>P(=O)CH<sub>2</sub>- group (wherein  $r_0$  is as defined above);

p represents 1, 2 or 3, and when p is 2 or more, X<sub>c</sub>s are the same or different;

Y<sub>a</sub> represents a halogen atom, a nitro group, a  $r_0$ CO-NH- group (wherein  $r_0$  is as defined above), a C1-C10 alkyl group or a C1-C10 alkoxy group;

q represents 0, 1 or 2, and when q is 2 or more,  $Y_a$ s are the same or different;

$K_a$  represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, and  $L_a$  represents a hydrogen atom or a C1-C10 alkyl group, or

$K_a$  and  $L_a$  together may form a C1-C10 alkylene group or a 1,3-butadienylene group, and

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range, with a compound represented by the formula (XLVII'):

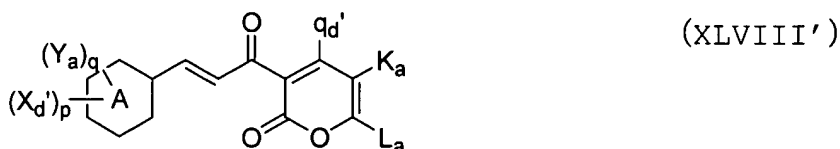
$r_c-V$  (XLVII')

wherein  $r_c$  represents a  $t_c'$ -group { wherein  $t_c'$  represents a C1-C10 alkyl group; a C3-C10 alkenyl group; a C3-C10 alkynyl group; a C1-C10 alkyl group substituted with a  $r_0r_0'N-CH_2-$  group (wherein  $r_0$  and  $r_0'$  are as defined above), a  $rOCH_2-$  group (wherein  $r$  is as defined above), a  $r_0-CO-$  group (wherein  $r_0$  is as defined above), a C1-C10 alkoxy carbonyl group, an aminocarbonyl group or a cyano group; or a  $r_3-r_1-$  group (wherein  $r_3$  represents a phenyl group or a pyridyl group, and  $r_1$  is as defined above)}, and  $V$  represents a leaving group, and

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected

is the same, selected substituents may be the same or different as long as they are selected within the range;

**48. (Original)** A process for producing a cinnamoyl compound represented by the formula (XLVIII'):



wherein

A is as defined below,

$X_d'$  is a substituent on a carbon atom, and represents an  $a_{0d}'-r_1-b-r_1'$ - group (wherein  $a_{0d}'$  represents a carboxy group, and  $r_1$ ,  $r_1'$  and  $b$  are as defined below), a HO-COCO-NH- group, an  $a_{3d}'-z-NH$ - group (wherein  $a_{3d}'$  represents a C1-C10 alkyl group substituted with a carboxy group, and  $z$  is as defined below), or an  $a_{4d}'-NHCO$ - group (wherein  $a_{4d}'$  represents a C1-C10 alkyl group substituted with a carboxy group, or a HO-CO-(HO-COCH<sub>2</sub>)CH- group),

$p$  is as defined below and, and when  $p$  is 2 or more,  $X_d'$ 's are the same or different,

$Y_a$  and  $q$  are as defined below,

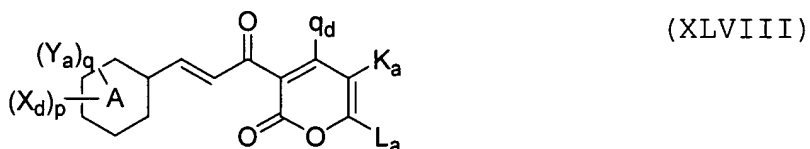
$q_d'$  represents a  $r_d''-O$ - group (wherein  $r_d''$  represents a hydrogen atom; a C1-C10 alkyl group; a C3-C10 alkenyl group; a C3-C10 alkynyl group; a C1-C10 alkyl group substituted with a  $r_0r_0'N-CH_2$ - group (wherein  $r_0$  and  $r_0'$  are as defined below), a  $rOCH_2$ - group (wherein  $r$  is as defined below), a  $r_0-CO$ - group (wherein  $r_0$  is as defined below), a

carboxy group, an aminocarbonyl group or a cyano group; or a  $r_3$ - $r_1$ - group (wherein  $r_3$  represents a phenyl group or a pyridyl group, and  $r_1$  is as defined below)}, a piperidino group, a morpholino group, or a  $r_4r_4'$ N- group (wherein  $r_4$  and  $r_4'$  are as defined below, provided that they are not hydrogen atom at the same time),

$K_a$  and  $L_a$  are as defined below, and

the term "as defined above (or below)" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above (or below) and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

which comprises hydrolyzing a cinnamoyl compound represented by the formula (XLVIII):



wherein

A represents a benzene ring or a pyridine ring,

$X_d$  is a substituent on a carbon atom, and represents an  $a_{0d}$ - $r_1$ - $b$ - $r_1'$ - group {wherein  $a_{0d}$  represents a  $r_2O-CO$ - group (wherein  $r_2$  represents a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a hydroxy group),  $r_1$  represents a C1-C10 alkylene group,  $r_1'$  represents a single bond or a C1-C10 alkylene group, and  $b$  represents an oxy group, a

thio group, a sulfinyl group, a sulfonyl group or an imino group}, a  $r_0\text{O-COCO-NH-}$  group (wherein  $r_0$  represents a C1-C10 alkyl group), an  $a_{3d}\text{-z-NH-}$  group (wherein  $a_{3d}$  represents a C1-C10 alkyl group substituted with a C1-C10 alkoxy carbonyl group, and  $z$  represents a carbonyl group or a sulfonyl group), or an  $a_{4d}\text{-NHCO-}$  group (wherein  $a_{4d}$  represents a C1-C10 alkyl group substituted with a  $r_0\text{O-CO-}$  group (wherein  $r_0$  is as defined above), or a  $r_0\text{O-CO-(r}_0\text{O-COCH}_2\text{)CH-}$  group (wherein  $r_0$  is as defined above)),

$p$  represents 1, 2 or 3, and when  $p$  is 2 or more,  $X_{ds}$  are the same or different,

$Y_a$  represents a halogen atom, a nitro group, a  $r_0\text{CO-NH-}$  group (wherein  $r_0$  is as defined above), a C1-C10 alkyl group or a C1-C10 alkoxy group,

$q$  represents 0, 1 or 2, and when  $q$  is 2 or more,  $Y_{as}$  are the same or different;

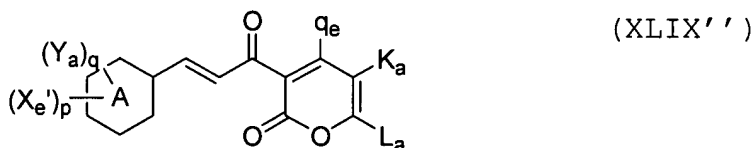
$q_d$  represents a  $r_d\text{-O-}$  group (wherein  $r_d$  represents a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, a C1-C10 alkyl group substituted with a  $r_0r_0'\text{N-CH}_2\text{-}$  group (wherein  $r_0$  is as defined above, and  $r_0'$  is the same as or different from  $r_0$  and has the same meaning as  $r_0$  has), a  $r\text{OCH}_2\text{-}$  group (wherein  $r$  is as defined above), a  $r_0\text{-CO-}$  group (wherein  $r_0$  is as defined above), a C1-C10 alkoxy carbonyl group, a carboxy group, an aminocarbonyl group or a cyano group, or a  $r_3\text{-r}_1\text{-group}$  (wherein  $r_3$  represents a phenyl group or a pyridyl group, and  $r_1$  is as defined above)); a piperidino group; a morpholino group; or a  $r_4r_4'\text{N-}$  group (wherein  $r_4$  and  $r_4'$  represent a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, provided that they are not a hydrogen atom at the same time),,

$K_a$  represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, and  $L_a$  represents a hydrogen atom or a C1-C10 alkyl group, or

$K_a$  and  $L_a$  together may form a C1-C10 alkylene group or a 1,3-butadienylene group,

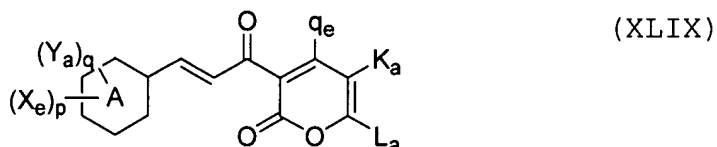
the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

**49. (Original)** A process for producing a cinnamoyl compound represented by the formula (XLIX''):



wherein  $X_e'$  represents an  $a_{0e}'-r_1''-b''$ - group {wherein  $a_{0e}'$  represents an  $a_{0e}$ - group (wherein  $a_{0e}$  is as defined below), a 3-sulfopropyl group or a 4-sulfobutyl group, and  $r_1''$  and  $b''$  are as defined below}, and  $A$ ,  $Y_a$ ,  $p$ ,  $q$ ,  $q_e$ ,  $K_a$  and  $L_a$  are as defined below, and the term "as defined above (or below)" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above (or below) and, among the plural substituents, although the selection range of substituents to be selected is the same, selected

substituents may be the same or different as long as they are selected within the range;  
which comprises reacting a cinnamoyl compound represented by the formula (XLIX):



wherein

A represents a benzene ring or a pyridine ring,

X<sub>e</sub> is a substituent on a carbon atom, and represents a H-b''- group (wherein b'' represents an oxy group or a thio group),

p represents 1, 2 or 3 and, when p is 2 or more, X<sub>e</sub>s are the same or different,

Y<sub>a</sub> represents a halogen atom, a nitro group, a r<sub>0</sub>CO-NH- group (wherein r<sub>0</sub> is a C1-C10 alkyl group), a C1-C10 alkyl group or a C1-C10 alkoxy group,

q represents 0, 1 or 2, and when q is 2 or more, Y<sub>a</sub>s are the same or different;

q<sub>e</sub> represents a r<sub>e</sub>-O- group (wherein r<sub>e</sub> represents a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, a C1-C10 alkyl group substituted with a r<sub>0</sub>r<sub>0</sub>'N-CH<sub>2</sub>- group (wherein r<sub>0</sub> is as defined above, and r<sub>0</sub>' is the same as or different from r<sub>0</sub> and has the same meaning as r<sub>0</sub> has), a rOCH<sub>2</sub>- group (wherein r represents a hydrogen atom or a C1-C10 alkyl group), a r<sub>0</sub>-CO- group (wherein r<sub>0</sub> is as defined above), a C1-C10 alkoxycarbonyl group, an aminocarbonyl group or a cyano group, or a r<sub>3</sub>-r<sub>1</sub>-group (wherein r<sub>3</sub> represents a phenyl group or a pyridyl group,

and  $r_1$  represents a C1-C10 alkylene group)); a piperidino group; a morpholino group; or a  $r_4r_4'$ N- group (wherein  $r_4$  and  $r_4'$  represent a hydrogen atom, a C1-C10 alkyl group, a C3-C10 alkenyl group, a C3-C10 alkynyl group, or a C2-C10 alkyl group substituted with a C1-C10 alkoxy group, provided that they are not a hydrogen atom at the same time),

$K_a$  represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, and  $L_a$  represents a hydrogen atom or a C1-C10 alkyl group, or

$K_a$  and  $L_a$  together may form a C1-C10 alkylene group or a 1,3-butadienylene group, and

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range, with a compound represented by the formula (XLIX'):

$a_0e-r_1''-V'$  (XLIX')

wherein

$a_0e$  represents a methyl group substituted with a C1-C10 alkylthio group, a methyl group substituted with a C1-C10 alkylsulfinyl group, a methyl group substituted with a C1-C10 alkylsulfonyl group, a C2-C10 alkenyl group, a C2-C10 alkynyl group, a  $r_2O-CO-$  group (wherein  $r_2$  represents a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a hydroxy group), a  $rr'N-CO-$  group (wherein  $r$  and  $r'$  are the same or different, and represent a hydrogen atom or a C1-C10 alkyl group), an  $a_1-NH-CO-$  group (wherein  $a_1$  represents a C2-C10 alkyl group substituted with a C1-C10 alkoxy



group), an  $a_1'$ -CO- group (wherein  $a_1'$  represents a morpholino group), a  $rr'$ N-CH<sub>2</sub>- group (wherein  $r$  is as defined above,  $r'$  is the same as or different from  $r$  and has the same meaning as  $r$  has), a  $r_0$ -(O)<sub>1</sub>-CONH-CH<sub>2</sub>- group (wherein  $r_0$  is as defined above, and 1 represents 0 or 1), a  $r$ -OCH<sub>2</sub>- group (wherein  $r$  is as defined above), a  $r_0$ -CO- group (wherein  $r_0$  is as defined above) or a cyano group,

$r_1''$  is the same as or different from  $r_1$  and has the same meaning as  $r_1$  has, and  $V'$  represents a leaving group or a hydroxy group, or 1,3-propanesultone or 1,4-butanedisultone

the term "as defined above" used for the same symbols among plural substituents means that the plural substituents independently represent the same meaning as that described above and, among the plural substituents, although the selection range of substituents to be selected is the same, selected substituents may be the same or different as long as they are selected within the range;

**50. (Cancelled)**

**51. (Currently amended)** A composition for suppressing transcription of a Type I collagen gene, which comprises a compound according to ~~any one of claims 1 to 25~~ claim 1 and an inert carrier;

**52. (Cancelled)**

**53. (Original)** A composition for improving tissue fibrosis, which comprises a compound according to ~~any one of claims 1 to 25~~ claim 1 and an inert carrier;

**54. (Currently amended)** A method for improving tissue fibrosis, which comprises administering an effective amount of a compound according to ~~any one of claims 1 to 25~~ claim 1 to a mammal in need thereof;

**55. (Cancelled)**

**56. (Currently amended)** A composition for suppressing the activity of TGF- $\beta$ , which comprises a compound according to ~~any one of claims 1 to 25~~ claim 1 and an inert carrier;

**57. (Cancelled)**

**58. (Currently amended)** A composition for hair growth which comprises a compound according to ~~any one of claims 1 to 25~~ claim 1 and an inert carrier;

**59. (Currently amended)** A method for growing hair, which comprises administering an effective amount of a compound according to ~~any one of claims 1 to 25~~ claim 1 to a mammal in need thereof;

**60. (Cancelled)**

**61. (Currently amended)** An agent for treating chronic renal failure, which comprises a compound according to ~~any one of claims 1 to 25~~ claim 1 and an inert carrier;

**62. (Cancelled)**

**63. (Original)** A composition for suppressing transcription of a Type I collagen gene, which comprises a compound according to claim 2 and an inert carrier;

**64. (Cancelled)**

**65. (Original)** A composition for suppressing transcription of a Type I collagen gene, which comprises a compound according to claim 3 and an inert carrier;

**66. (Cancelled)**

**67. (Original)** A composition for suppressing transcription of a Type I collagen gene, which comprises a compound according to claim 4 and an inert carrier;

**68. (Cancelled)**

**69. (Original)** A composition for suppressing transcription of a Type I collagen gene, which comprises a compound according to claim 10 and an inert carrier;

**70. (Cancelled)**

**71. (Original)** A composition for suppressing transcription of a Type I collagen gene, which comprises a compound according to claim 11 and an inert carrier;

**72. (Cancelled)**

73. **(Currently amended)** A composition for suppressing transcription of a Type I collagen gene, which comprises a compound according to ~~claim 14 to 25~~ claim 14 and an inert carrier.